National Agricultural Statistics Service, USDA

Fact Finders for U.S. Agriculture

Guide to the Sample Survey and Census Programs of NASS

February 2003

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THE GUIDE TO THE SAMPLE SURVEY AND CENSUS PROGRAMS OF NASS

INTRODUCTION

The following contains a series of information sheets describing the major programs of the National Agricultural Statistics Service (NASS). These are designed to provide a concise description of the purpose, coverage, content, methods, products and uses of the data for each program. Each sheet is also designed to stand alone so they can be separated from the others.

The target audiences for these sheets are people with limited familiarity with NASS who have occasional need to know more about specific NASS programs. The audience includes government administrators and managers, university staff, colleagues from other countries, and others with similar interests. More detailed discussion of these topics can be obtained by contacting NASS.

GLOSSARY

Several terms and concepts are common to many NASS programs. The information sheets discuss these basic concepts within each program. Key terms and concepts are described below.

CATI stands for Computer Assisted Telephone Interviewing. NASS uses special software to create computer versions of questionnaires. In addition to replicating question phrasing, CATI instruments also control the flow and skip patterns of the questionnaire. Interviewers ask the questions as they come up on their monitors and key the responses directly into the computer. Basic checks are made on the data and suspicious data trigger a prompt to the interviewer to verify while the respondent is still on the phone.

NASS conducts both **censuses and surveys**. A survey employs a sample selected from a target population and uses statistical techniques to make inferences about that population. Most NASS programs use a survey to obtain necessary data. A census is a complete enumeration of the entire population. The census of agriculture is the largest and best known census administered by NASS. However, when the target population is small, NASS will conduct a census for those programs.

A **farm** is defined as “any establishment from which $1,000 or more of agricultural products were sold or would normally be sold during the year”. Government payments are included in sales. Institutional farms, experimental and research farms, and Indian Reservations are included as farms. Places with their entire acreage enrolled in the Conservation Reserve Program, set aside, or other government programs are considered operating.

An important distinction exists between **forecast and estimates**. A forecast is a projection of a value that does not yet exist. For example, NASS forecasts crop yields early in the growing season and well before harvest. An estimate is a measure of something that exists, like planted acres and livestock inventory. After harvest, yield per acre is an estimate.

Nearly all data collected by NASS must be defined with a **reference date**. This reference date may be a specific day or an extended period of time. For example, expense and income data cover a full year while prices received for crops are usually for a whole month. Acreages and final yield estimates refer to the growing season. Items that are constantly changing, such as livestock inventories and yield forecasts are measured as of a specific day. All NASS publications clearly state the reference period.

All NASS estimates and forecasts are published according to a predetermined schedule of **release dates**. In the fall of each year, NASS announces the complete release schedule for the following year. This ensures that sufficient notice is given, everyone has equal and orderly access to the estimates, and no one gets special consideration.

NASS has an established **revision policy** for all estimates. A preannounced timetable is established for the release of revised estimates. In general, a revision may be made when the next estimate in the series is published (weekly, monthly, or quarterly), one year following the estimate, and after the five-year census of agriculture. The basis for revisions must be supported by additional data that directly affect the estimate.

A **sampling frame** contains a set of items all meeting a prescribed characteristic of interest. A sampling frame defines a target population for drawing a sample for a survey or conducting a census. All censuses and surveys start by defining the target population. In NASS, the main sampling frame is a **list frame** of farms and ranches. The list frame allows NASS to efficiently sample farms and ranches for most commodities and many farm characteristics. A significant problem with the list frame is that it is incomplete. NASS has also built an **area frame** which contains all land in the United States and consequently includes all farms. The area frame is divided into segments of land within strata defined by degree of cultivation. The area frame is complete, however, a general purpose sample of segments is not efficient for many commodities. NASS marries these two frames using **multiple frame** sample designs to utilize the efficiencies of the list frame and use the area frame to measure incompleteness.

ACREAGE AND PRODUCTION

PURPOSE

The Acreage and Production survey provides data needed to estimate acreage and production of selected crops and inventory of major livestock species at the county level for state and federal programs. Data are also collected to update commodity information on the NASS list frame for sampling purposes.

COVERAGE

The Acreage and Production survey is conducted in 42 states. All counties in these states must be represented in the sample. The commodities covered by the survey are specific to each state. A federal county estimates program is jointly defined by NASS, USDA Risk Management Agency (RMA), and USDA Farm Service Agency (FSA). Individual states will add commodities to the program to cover special needs of local cooperators. States will also add items to the survey to refresh aging sampling information.

CONTENT

The list of commodities is fairly exhaustive in most states. Operators are asked to provide information for their entire farm. For field crops and vegetables, farmers are asked for planted acres, acres harvested for grain and silage, and quantity harvested. For fruit, number of trees or vines and quantity harvested are asked. For livestock, total inventory and numbers by subclasses like beef cows, dairy cows, and calves are obtained.

FREQUENCY

The Acreage and Production survey is conducted annually at the end of the harvest season. Some states conduct two surveys, one in late summer for the early harvested crops (small grains) and another in late fall for row crops, hay, and livestock. Most states conduct only one late fall survey.

METHODS

The target population is all farms and ranches in each state. Operations in other acreage and livestock surveys are excused from the Acreage and Production survey, however their responses to these other surveys are merged into the summaries. Special sampling considerations are employed to ensure all counties and rarer commodities are adequately represented. Also, farms that have not responded to a survey for several years are often added to the sample for the purpose of refreshing sampling information.

Each state develops its own data collection strategy. Most states conduct a mail survey with second mailings or a telephone follow up to ensure adequate coverage for each county. Response

targets are set for each county and the follow up strategy is defined accordingly. The number of reports returned is monitored and a nonresponse follow up strategy is mapped out to achieve response targets.

Summaries compute the measures needed to allocate previously released state totals to regions and counties. State estimates for commodities are made from acreage and livestock surveys conducted under more rigid controls. The Acreage and Production survey is designed to increase the usable sample size to a level adequate for county level estimation.

PRODUCTS

Federal county estimates for small grains are released in mid-February. Federal row crop estimates are published around March 1 with hay estimates published in July and livestock estimates in August. State program county estimates are published by each state according to individual state release schedules.

USES

The RMA uses county estimate data to determine when crop loss insurance payments are to made to farmers. They also use the data directly and indirectly in their actuarial process. The FSA uses the estimates in their formulas for posted county prices. Other government agencies, universities, and research organizations use county estimate data to determine many production and economic values on a small area basis. County estimates are the only source of yearly localized estimates.

SPECIAL FEATURES

RELATED PROGRAMS

Crops/Stocks
Agricultural Yield
Cattle Inventory
Sheep and Goat Inventory
Hog Inventory
Census of Agriculture

February 2003

AGRICULTURAL RESOURCE MANAGEMENT (ARMS)

PURPOSE

The ARMS is the primary source of information to the U.S. Department of Agriculture and the public on a broad range of issues about U.S. agricultural resource use, costs, and farm sector financial conditions. The ARMS is the only source of information available for objective evaluation of many critical issues related to agriculture and the rural economy. The survey is conducted in collaboration with the Economic Research Service (ERS).

COVERAGE

The sample is designed to provide coverage of all farms in the 48 contiguous States. The farm population includes all establishments which produced and sold, or would normally have sold, at least $1,000 of agricultural products during the previous year. A sample from the NASS list frame is supplemented by a sample of area tracts to ensure complete coverage.

CONTENT

The ARMS collects production practices and cost of production data on selected commodities. The ARMS also collects detailed whole farm financial information from a representative sample of farms and ranches across the country. ARMS is collected in three data collection phases:

The initial phase, ARMS Screening survey, collects general farm data such as crops grown, livestock inventory, and value of sales. Screening data are used to qualify (or screen) farms for the other phases.

The second phase, (Phase II), collects data associated with agricultural production practices, resource use, and variable costs of production for specific commodities. Farm operators provide data on fertilizer and nutrient applications, pesticide applications, pest management practices, and irrigation.

The final phase, (Phase III) collects whole farm finance, operator characteristics, and farm household information. Farm operators provide data on farm operating expenditures, capital improvements, assets, and debt for agricultural production. In addition, operators provide data on farm-related income, government payments, the source and amount of off-farm income, and characteristics of themselves and their household.

FREQUENCY

The three phase survey is conducted annually. The initial phase is conducted from May through July. Phase II is conducted from September through December. Phase III is conducted from February through April with the reference period the previous year. Respondents sampled in

Phase II are asked to complete a Phase III report. Data from both phases provide the link between agricultural resource use and farm financial conditions.

METHODS

Operators are selected to assure adequate coverage by state and region and to minimize reporting burden. Strata are based on state, value of agricultural sales and type of farm. Phase I screening is performed by mail and phone. Operators that are in business and/or have the commodity of interest are eligible to be selected for Phase II or Phase III. The commodity of interest is determined by the ERS.

For these phases, all data collection was conducted by personal interview.

PRODUCTS

NASS publishes two reports from ARMS. The first is called *Agricultural Chemical Usage - Field Crops* and is released in May following the Phase II data collection. The second report is the *Farm Production Expenditures*, compiled from the Phase III, is released in July. ERS prepares several state, regional, and national reports using ARMS data including *Commodity Production Costs and Returns, Farm Operating and Financial Characteristics* and the *Annual Report to Congress on the Status of Family Farms*. ERS uses the dataset as the basis for extensive research and analysis.

USES

Farm organizations, commodity groups, agribusiness, Congress, and the USDA use information from ARMS to evaluate the financial performance of farm/ranch businesses and to make policy decisions affecting agriculture. The Bureau of Economic Analysis (BEA) uses ARMS data to calculate the farm sector portion of the Gross Domestic Product (GDP) for the nation.

ARMS data provide the necessary background information to support evaluations of the relationships among agricultural production, resources and the environment.

SPECIAL FEATURES

The efficiency and strength of the ARMS design allows the survey to address policy questions relevant to resource use or financial issues. For example, commodity versions are rotated every 5-6 years to focus on resource use and production costs for specific commodities.

RELATED PROGRAMS

Census of Agriculture

February 2003

AGRICULTURAL YIELD

PURPOSE

The Agricultural Yield survey provides farmer reported survey data of expected crop yields used to forecast and estimate crop production levels throughout the growing season.

COVERAGE

The Agricultural Yield survey is conducted in all states except Alaska and Hawaii. Samples of farm operators are selected from the March Crops/Stocks survey (small grains) and the June Crops/Stocks survey (late season crops and tobacco). Farmers reporting acreage of at least one commodity of interest are included in the monthly data collection to forecast crop yields.

CONTENT

Farm operators provide data for small grain crops (winter wheat, durum wheat, other spring wheat, barley, oats), late season crops (corn, cotton, dry edible beans, peanuts, rice, soybeans, sorghum, sugarcane), tobacco (burley, air cured, and dark fired), and hay (alfalfa and other hay) being produced on the operation.

Acreage planted, acreage for harvest and expected yield per acre are collected from each operator for the crop of interest the first month. In following months, the same sample of operators are contacted to update expected yield per acre data. Updating reported information from the same sample of operators each month provides a measure of change resulting from growing conditions.

FREQUENCY

The Agricultural Yield survey is a monthly survey running from May through November. Small grains data are collected from May through September. Late season crop data are collected from August through November. Hay data are collected in May, August, and October. Tobacco data are collected from May through November.

METHODS

The reference date for each monthly survey is the 1st of the month. Data collection for each survey begins no earlier than the 25th of the previous month for mail data collection. Phone data collection begins no earlier than the 28th of the previous month. Data collection concludes about the 5th of each month depending on the release date of the *Crop Production* report.

Sample sizes run from 5,000 (June) to 22,000 (August). The primary method of data collection is telephone interview. Mail out-mail back data collection is a highly cost effective and less burdensome method. However, the narrow data collection period each month requires a quick

response thus reducing the effectiveness of data collection by mail. Personal interview data collection is used on a limited basis when requested by the respondents.

Phone enumerators utilize CATI software which allows the enumerator to verbally maintain a conversation with the respondent while following the instrument flow and question text. Data are entered directly into an electronic format and the software performs simple consistency checks which drastically reduces the need to make follow up contacts to the respondent. The software further reduces respondent burden by using previously reported data files to avoid unnecessarily re-asking questions answered by the respondent in a previous month.

PRODUCTS

The *Crop Production* report is published no later than the 12th of each month. Acreage, yield, and production forecasts and estimates are prepared for the crops in season.

USES

The Agricultural Yield survey is one component of the estimation process for commodity production estimates. The *Crop Production* report provides critical information on expected end-of-season commodity supplies each month during the growing season. Farm operators are the greatest benefactor of this data series. The NASS estimates of supply are the official, independent, and unbiased baseline. The price discovery mechanism determines crop prices using credible estimates of supply that reflect the changing conditions during the season. Producers rely on credible estimates of supply to minimize swings in farm gate prices.

Crop production estimates are valuable for producers and industry alike to plan the marketing and movement of the commodity throughout the year. A few examples include development of an individual producer's marketing plan (local scope), forecasting transportation requirements (state or regional), or evaluating export potential (national and international).

SPECIAL FEATURES

NASS and the World Agricultural Outlook Board have jointly produced *Understanding USDA Crop Forecasts* (Miscellaneous Publication No. 1554, March1999) which provides additional insight into the crop forecasting program of the USDA.

A NASS report titled *The Yield Forecasting Program of NASS* (July 1998) provides a more detailed and mathematical discussion of the yield forecasting and estimating program.

RELATED PROGRAMS
Objective Yield
Crops/Stocks

February 2003

BROILER HATCHERY

PURPOSE

The Broiler Hatchery surveys provide estimates of number of eggs placed into hatcheries to be used for broiler production and the number of chicks hatched and placed into feeding operations.

COVERAGE

Hatchery information is collected from all hatcheries producing broiler type chicks whether for sale, for their own use in integrated operations (whether or not transactions are for cash), or for hatchery supply flocks.

All known hatcheries hatching eggs for broiler production are contacted for information on a weekly basis in 19 states. In May 2001, the program expanded from 15 to 19 states. The original 15 states are: Alabama, Arkansas, California, Delaware, Florida, Georgia, Maryland, Mississippi, North Carolina, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, and West Virginia. The four states added are: Kentucky, Louisiana, Missouri, and Oklahoma. Eleven additional states are surveyed as part of the monthly Chicken and Egg survey. All states are surveyed in December.

CONTENT

The Chicken Hatchery survey includes counts of eggs set in incubators, chicks hatched, chick placements into feeding operations, and hatchery capacity. Chicks hatched for research purposes are included, while research and pharmaceutical use of unhatched eggs and embryos are not included.

FREQUENCY

Broiler hatcheries are surveyed weekly in the 19 major producing states and monthly in 11 additional states. Hatcheries producing chicks for future egg production are surveyed monthly.

METHODS

NASS maintains a list of chicken hatcheries. Each week, approximately 330 operations receive a questionnaire referring to the previous week and asked to respond by Wednesday. Those that do not respond within a specified time period are phoned. Imputation methods are employed for operations not reporting using historical data and current data relationships from similar size operations. Reports received too late to be summarized for the current week are still processed for the next week and revised estimates may be published based on these data. The reference period is the entire week ending on Saturday.

PRODUCTS

The Broiler Hatchery report is released each Wednesday. Estimates of the number of broiler eggs set in incubators and broiler chicks placed for meat production are provided by state, a 15-state total, and a 19-state total. Six weeks of estimates are included in each report. The monthly *Chicken and Eggs* report contains egg production for the 30 major states, other states, and the U.S.

USES

The primary use of the weekly reports are to forecast future supplies of poultry meat and related prices. Producers and processors use these data for marketing and business decisions. Trade organizations, economists, and other analysts use the data to monitor the health of the industry and assess the industry's contribution to the agricultural sector.

SPECIAL FEATURES

RELATED PROGRAMS

Chicken and Eggs
Poultry Slaughter
Poultry Production and Value Summary

February 2003

CATFISH PROCESSING

PURPOSE

The Catfish Processing surveys provide basic monthly processing data for the catfish industry. The surveys allow the industry to track pounds killed and sold; grower price; processor prices received at the point of first sale; and the pounds of fish in inventory at the end of the month.

COVERAGE

Survey data for catfish processing are collected from all qualifying processors. Processors must meet the minimum criteria of having a capacity to process of at least 2,000 pounds live weight of catfish per 8-hour shift.

CONTENT

Processors provide round weight purchased and prices paid, as well as inventory, quantity sold, and prices received by utilization.

FREQUENCY

The Catfish Processing survey is conducted monthly.

METHODS

The survey is conducted entirely by NASS Headquarter's staff in Washington, D.C. NASS field offices, however, are responsible for keeping Headquarters informed of any new processing operations in their state to ensure that the survey coverage remains as complete as possible. Processors are contacted either by mail or telephone. Diligent effort is made to ensure that all operations are accounted for in the estimate.

The processing data are obtained specifically for farm-raised fish and exclude wild capture fish. Prior to summarization, questionnaires are compared with the previous month's reports for comparable placement of data, reasonable price levels, and reasonable inventory carryover given the sales and processing totals reported. Estimates are made for those processors whose reports are not available in time to be included in the release. These plants are identified in the publication. Imputed estimates are normally based on the processor's previous report and current conditions. Published totals are a straight summation of the individual reports and estimated data. Price items are weighted by the associated volumes to compute weighted average prices.

PRODUCTS

Estimates of round weight purchased, prices paid, imports, exports, plus inventory, quantity sold, and price received by utilization are published in the *Catfish Processing* report released on the 21st or 22nd of each month. Additional tables, which provide a summary of the previous year, are included in the February release.

USES

Producers and marketers use sales, price and inventory numbers to project future supplies of catfish. Producers and processors use the data in making business decisions. Economists use sales and price data to assess the present status and future of the industry. Data are also used in assessing the general situation of the agricultural sector.

SPECIAL FEATURES

One unique feature of the *Catfish Processing* report is the listing of cooperating processors by name on each month's release. This feature originally was used to solicit industry cooperation in maintaining coverage, but it has continued because of the processors' overall acceptance of this policy.

Import and export data for frozen catfish fillets, which are compiled by the Department of Commerce, are also included in this report.

RELATED PROGRAMS

Census of Aquaculture
Trout Production
Catfish Production

February 2003

CATFISH PRODUCTION

PURPOSE

The Catfish Production surveys provide basic production data for the catfish industry. The surveys allow the industry to track number of catfish farms; water area devoted to production and other uses; the number, pounds, and value of fish produced; the point of first sale; and the number of fish in inventory.

COVERAGE

All known catfish farms in13 leading producing states are included in the January survey. The states are Alabama, Arkansas, California, Florida, Georgia, Illinois, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, South Carolina, and Texas. Four states, Alabama, Arkansas, Louisiana, and Mississippi, are surveyed in July.

CONTENT

In January, data are collected on the number of acres of water that are used for production, acres of ponds under construction, and acres taken out of production. The number and weight of fish in inventory by size of fish, and the number, pounds, and value of sales by size of fish are also obtained. Additional questions cover the percent of the total value of sales for food fish and stockers by marketing outlet. These outlets are live haulers, fee and recreational use, other producers, government agencies, direct to consumers, processors, and retailers. In July, only inventory and water area are collected.

FREQUENCY

This main survey is conducted in January and the smaller survey is conducted in July.

METHODS

A list of catfish operations is maintained by NASS. All operations (about 1,200) are selected for each survey in the states included in the program. The reference date for the inventory and water area is January 1 or July 1 of the current year. Sales data refer to the previous calendar year. Questionnaires are mailed to reach respondents about the first of the month. Growers not returning questionnaires by mail are followed up by phone. In some cases, personal visits are made.

PRODUCTS

Results are published in the *Catfish Production* report in February and July. The February report contains number of catfish farms; water area devoted to production and other uses; the number,

pounds, and value of fish produced; the point of first sale; and the number of fish in inventory are provided by state and 13-state total. The July report contains number of catfish farms, inventory, and water area by state and a 4-state total.

USES

Producers and marketers use inventory numbers to project future supplies of catfish. Producers use the data in making business decisions. Economists use sales data to assess the present status and future of the industry. Data are also used in assessing the general situation of the agricultural sector.

SPECIAL FEATURES

RELATED PROGRAMS

Catfish Processing
Census of Aquaculture
Trout Production

February 2003

CATTLE INVENTORY

PURPOSE

The Cattle Inventory surveys provide basic inventory data that describe the nation's cattle herd. The reports provide estimates of the number of breeding animals for beef and milk production as well as the number of heifers being held for breeding herd replacement. Estimates of cattle and calves being raised for meat production are also included. The number of calves born during the previous year is also measured.

COVERAGE

The Cattle Inventory survey is conducted in all states except Alaska. A sample of cattle producers is selected from the NASS list frame. A sample of area tracts is selected to measure incompleteness of the list. This multiple frame concept ensures statistical coverage of all cattle operations in each State.

CONTENT

Cattle producers provide data for total cattle inventory and the components of that total; beef cows, milk cows, bulls, replacement heifers, other steers and heifers, and calves. Calf crop (calves born during the year), cattle on feed, and breeding animal values are also collected.

FREQUENCY

The Cattle Inventory survey is conducted in January and July of each year. The January survey is the larger of the two surveys and includes nearly 50,000 cattle operations of all sizes. Estimates are made for all states. The July survey includes a list sample of nearly 10,000 of the larger cattle operations. Estimates are made at the U.S. level and for the major states.

METHODS

The reference dates for the surveys are January 1 and July 1. Data collection occurs for 7 to 15 days beginning at the reference date. A considerable amount of time and effort is expended to tailor the data collection to the operation as well as coordinate the data collection with other surveys underway. Mail out/mail back data collection is used and emphasized as a cost effective and less burdensome method of data collection. However, the primary method of collecting data is phone enumeration. A limited number of personal interviews are reserved for large cattle operations or operators who request that method.

Phone enumerators utilize Computer Assisted Telephone Interviewing (CATI), a sophisticated software which allows them to verbally maintain a conversation with the respondent while following the instrument flow and question text. Reported data are entered directly into an

electronic format and the software performs simple consistency checks which drastically reduces the need to make follow up contacts to the respondent.

PRODUCTS

The *January* and *July Cattle Inventory* reports are released on a Friday at the end of the respective months. The January report provides estimates of total inventory, beef cows, milk cows, bulls, replacement heifers, other steers and heifers, and number of calves born in the previous year by state and the U.S. In July, estimates are for the U.S. and selected states and the number of calves born is a projection of the current year calf crop.

USES

The cattle inventory estimates provide an important baseline of beef and milk cow herd supplies expected. The estimates of inventory, cattle on feed, other steer and heifers, and calves all provide data points which produce comparisons and trends to help cattle producers and industry evaluate the amount of beef moving to market.

Cattle producers are the largest benefactors of this data series. The price discovery mechanism used to set farm gate beef prices is, at a minimum, based on credible estimates of supply that reflect the changing situations of the cattle cycle. An individual producer, one who has little or no economies of scale to affect market prices, relies on credible estimates of supply to minimize unsubstantiated swings in farm gate prices.

The estimates of beef movement to market is also critical information needed for input suppliers, packers and government to evaluate the slaughter capacity volume expected in future months and potential supplies for export.

SPECIAL FEATURES

In January, estimates of the total number of operations with cattle and the number of operations by herd size are also made. The total inventory for each range of herd size is included.

RELATED PROGRAMS

Cattle on Feed
Milk Production
Meat Animals: Production, Disposition, and Income
Livestock Slaughter

February 2003

CATTLE ON FEED

PURPOSE

The Cattle on Feed surveys provide estimates of the number of cattle being fed a ration of grain, silage, hay and/or protein supplements for the slaughter market that are expected to produce a carcass that will grade select or better.

COVERAGE

The Cattle on Feed survey is conducted in the 17 largest cattle-feeding States. About 2,000 known cattle feeders with a capacity of 1,000 or more head are enumerated. Feedlots with 1,000 or more head capacity represent 83 percent of all fed cattle in the U.S. The 17 largest states represent 98 percent of U.S. cattle on feed in lots of 1,000 head or more capacity. Data are used in conjunction with *Cattle Inventory* data from January and July to obtain a measure of cattle on feed not included in the survey.

CONTENT

Cattle feeders provide data on inventory, placement into feedlots, marketings from feedlots, and other disappearance from feedlots (deaths, returned to grazing, movement to another feedlot). They provide further information on placement by weight group, and inventory by class. Supplemental data about the number of lots by size group including lots with less than 1,000 head capacity are published annually in January.

FREQUENCY

The Cattle on Feed survey is conducted monthly. Inventory by class, which breaks inventory into steers, heifers, and cows and bulls is asked on a quarterly basis. Estimates are published for the 12 largest states and the U.S.

METHODS

The reference date for the surveys is the first day of each month. Data collection occurs for 7 to 10 days beginning at the reference date. Due to the repeated contact of the respondents, convenience of reporting by respondents is critical to the success of the program. A considerable amount of time and effort is expended to tailor the data collection to the operation as well as coordinate the data collection with other surveys underway. Mail out/mail back data collection is used and emphasized as a cost effective and less burdensome method of data collection. Relative to other surveys, a substantial number of personal interviews are conducted for operators who prefer and request this method. There are many extremely large cattle feeders who play a key role in many states' cattle industries, and every effort is put forth to build a partnership with them as reporters. However, the primary method of collecting data is phone enumeration.

Phone enumerators utilize Computer Assisted Telephone Interviewing (CATI), a sophisticated software which allows them to verbally maintain a conversation with the respondent while following the instrument flow and question text. Reported data are entered directly into an electronic format and the software performs simple consistency checks as well as checks against previously reported data which drastically reduce the need to make follow up contacts to the respondent.

PRODUCTS

The monthly *Cattle on Feed* report is normally released on the third Friday of each month with inventory data pertaining to the first of that month.

USES

The cattle on feed estimates provide an important near-term outlook for beef supplies coming to market. Current marketings are heavily correlated with *Livestock Slaughter*. Cattle on feed placements by size group provide producers and analysts information to forecast marketings in a time period from approximately three to eight months following each monthly report.

Cumulative placements can be used with *January* and *July Cattle* reports to monitor feeder cattle supplies. Inventory by class can be used with *January* and *July Cattle* reports to monitor heifer retention in the cow/calf breeding herd.

Benefactors of these data series' range throughout all aspects of the beef marketing channel. These would include cow/calf producers, backgrounding operations, cattle feeders, meat packers, wholesalers, and retailers. Cattle on feed inventories correlate with the utilization of feed grains, impacting these and other input suppliers.

SPECIAL FEATURES

In January, estimates of the total number of operations feeding cattle and the number of operations by herd size are also made. The total inventory for each range of herd size is included.

RELATED PROGRAMS

Cattle Inventory
Meat Animals: Production, Disposition, and Income
Livestock Slaughter

February 2003

CENSUS OF AGRICULTURE

PURPOSE

The census of agriculture is the only source of detailed county level data that are collected, tabulated, and published using a uniform set of definitions and methodology for 3200 plus counties in the U.S. The census collects data on all commodities produced in the U.S. as well as detailed information on expenses, income, and operator characteristics.

COVERAGE

The census of agriculture is conducted in all 50 states on a target population is all farms and ranches selling or intending to sell $1,000 or more of agricultural products including horticulture. A census of agriculture is also conducted in Puerto Rico using a farm definition of $500 or more in sales and intentions.

CONTENT

The census is designed to obtain data on a totally exhaustive list of commodities. Census questionnaires are designed with open-ended questions to allow respondents to report every item produced on the farm, even the rarest of commodities. Expense items and income from all sources are obtained. Operator characteristics such as race, gender, age, tenure on the farm, and operating arrangement are also collected.

FREQUENCY

The census of agriculture is conducted every five years in years ending in 3 and 8 covering the preceding year.

METHODS

The reference period for crop, economic, and demographic data is the calendar year ending in 2 and 7. For livestock, the reference date is the December 31 of the reference year. NASS maintains a universe list of farms and ranches on a continual basis. This list undergoes an intensive list building effort before the start of each census to maximize coverage. The first mass mailing of census forms is done in December. Follow up mailings to maximize response are scheduled at predetermined intervals. Unique farms and special handling cases are removed from the mailing list and data are collected using other strategies like telephone, personal visit, or using custom cover letters. Response to the census is mandatory. NASS supplements the June Area survey with additional segments to measure list incompleteness (undercoverage).

Returned census forms are computer imaged (photographed) and optical character recognition software is used to capture responses in electronic form. Images may be recalled on demand to

help resolve data discrepancies. Data are reviewed for consistency and completeness. Imputation methodology has been developed to account for missing data cells (partial nonresponse). Unit nonresponse and undercoverage adjustments are made by reweighting techniques applied to data from reporting farms.

PRODUCTS

The *Census of Agriculture, Geographic Area Series, Volume 1* is released in February of the year following data collection. Farm counts and totals are published for every item reported. A separate publication is prepared for each state (*Part 1* through *Part 50*), Puerto Rico (*Part 52*), and the U.S. (*Part 51*). Subtotals and cross tabulations are included for many items. Examples include farms and totals by sales group, by size group, and by demographic class. Data are published by county (municipio), state, and the U.S.

Several additional special publications are prepared from each census. These include *County Profiles, State and County Highlights, Congressional Districts,* and the *Atlas.* A series of colorful pamphlets, called *Quick Facts*, provide key results for special topics designed for the general, often non-agricultural, public.

USES

The census numbers provide the most detailed information on the structure and changes occurring in agriculture. The list of data users is long and varied. Analysts may be studying a particular industry like livestock. Planners may be focused on a geographic region. Economists and government policymakers must evaluate the impact and effectiveness of proposed actions.

Issues concerning small farms, family farms, minority farms, specialty farms, as well as large production agriculture all have their unique data needs. Every five years the census meets virtually all of those needs.

SPECIAL FEATURES

RELATED PROGRAMS

June Area
Farm and Ranch Irrigation
Census of Horticultural Specialties
Census of Aquaculture
Census of Agriculture for Guam, the Virgin Islands, American Samoa, and the Northern Mariana Islands

February 2003

CENSUS OF AGRICULTURE FOR GUAM, THE VIRGIN ISLANDS, AMERICAN SAMOA, AND THE NORTHERN MARIANA ISLANDS

PURPOSE

The census of agriculture provides the most detailed and comprehensive data about on agriculture in Guam, the Virgin Islands, American Samoa, and the Northern Mariana Islands (collectively referred to the outlying areas). The census collects data on all agriculture operations, operators, and land.

COVERAGE

The Census of Agriculture for Outlying Areas is conducted in Guam, the Virgin Islands, American Samoa, and the Northern Mariana Islands. Each is treated as a separate census. In Guam and the Northern Mariana Islands, the target population is all farms which sell or would normally sell $1,000 or more of agricultural products in the census year. In the Virgin Islands, the target is all farms which sell or would normally sell $500 or more of agricultural products. In American Samoa, the target is all farms selling or consuming agricultural products.

CONTENT

The census is designed to obtain data on a totally exhaustive list of commodities. A separate questionnaire is developed for each locality. All census questionnaires are designed with open-ended questions to allow respondents to report every item produced on the farm, even the rarest of commodities. The census also collects expense, income, and agricultural practices data. Operator characteristics such as race, gender, age, tenure on the farm, and operating arrangement are also collected. NASS works with each local government to develop questionnaire content.

FREQUENCY

The Census of Agriculture for Outlying Areas is conducted every five years concurrent with the U.S. census of agriculture (years ending in 3 and 8), except American Samoa which is done one year later.

METHODS

The government in each locality assists with the census under a Memorandum of Understanding with NASS. Data collection occurs in January and February. The reference period is the calendar year preceding the data collection period.

Each locality develops a list of farm operations from a variety of sources. Enumerators are assigned a region and provided with all names on the list for that region. All data are collected through personal interview. When a farm is found to be out of business, enumerators determine

the disposition of the farm and follow up with new operators when necessary.

PRODUCTS

The *Volume 1, Geographic Area Series* for each locality is released during the year following data collection. Individual publications are *Part 53, Guam; Part 54, U.S. Virgin Islands; Part 55, American Samoa;* and *Part 56, Northern Mariana Islands*. Farm counts and totals are published for every item. Subdomain and cross tabulations are made for many items.

USES

The census numbers provide the most detailed information on the structure and changes occurring in agriculture in each locality. Governments use the data to evaluate policy and legislation, to administer programs and services, and to study trends in agriculture. Producers and other agricultural businesses use the data for planning, marketing, and research.

SPECIAL FEATURES

RELATED PROGRAMS

Census of Agriculture

February 2003

CENSUS OF AQUACULTURE

PURPOSE

The Census of Aquaculture provides detailed, comprehensive production and economic data on the aquaculture industry. It expands the scope of data relating to the industry over the annual catfish and trout programs.

COVERAGE

The Census of Aquaculture is a follow on survey of the census of agriculture. The target population is all farms in the 50 states engaged in aquaculture production. Most of these are identified from the preceding census of agriculture. The list is supplemented with additional operations believed to be producing aquaculture from other list sources, including NASS catfish and trout lists. State and federal hatcheries that distributed fish for restoration and conservation purposes are also added to the list.

CONTENT

The Census of Aquaculture covers aquaculture practices, operation size, production, sales, sources of water, marketing channels, agreements and contracts, and aquaculture for restoration and conservation purposes.

FREQUENCY

The Census of Aquaculture was first conducted in 1998. It is planned to be conducted three years after each 5-year census of agriculture.

METHODS

The reference period is the calendar year preceding the survey period. Data are collected by mail out-mail back. The forms are mailed in December of the reference year. A telephone follow up of operations not responding by mail is attempted to maximize response. In some special cases, personal visits are made. Sample weights of the reporting operations are adjusted to account for unit nonresponse.

PRODUCTS

The *Census of Aquaculture* publication is released at the end of the year the data are collected. It is part of a series of publications from the census of agriculture and three follow on studies. It is labeled *Volume 3, Special Studies Part 3*. Data are provided for all items for the U.S. and by state and region. Some items must be suppressed to protect the confidentiality of individual operations.

USES

As the only source of detailed production, sales and economic data, the census of aquaculture provides important statistics to government, academia, the industry, and others regarding the size and structure of the industry for planning, policymaking, research, and market analysis.

SPECIAL FEATURES

RELATED PROGRAMS

Census of Agriculture
Catfish Production
Catfish Processing
Trout Production

February 2003

CENSUS OF HORTICULTURAL SPECIALTIES

PURPOSE

The Census of Horticultural Specialities provides detailed, comprehensive production and economic data on the horticulture industry. It expands the scope of data relating to the industry over the annual floriculture and periodic nursery and greenhouse programs.

COVERAGE

The Census of Horticultural Specialties is a follow on survey of the census of agriculture. The target population is all farms and ranches in the 50 states reporting $10,000 or more of sales of horticultural specialty products. Most of these are identified from the preceding census of agriculture. The list is supplemented with additional operations believed to be producing horticultural products but without sales information to accurately determine their eligibility.

CONTENT

The Census of Horticultural Specialties covers bedding plants, herbaceous perennials, potted plants, cut flowers, foliage plants, deciduous trees, and other nursery plants. It also contains turfgrass, mushrooms, greenhouse food crops, seeds, and Christmas trees. Data on producing area, sales, marketing channels, irrigation practices, production expenses, and labor are also obtained.

FREQUENCY

Historically, the Census of Horticultural Specialties has been conducted two years after every other 5-year census of agriculture, in other words every 10 years. A proposal to conduct it every five years is under consideration.

METHODS

The reference period is the calendar year preceding the survey period. Data are collected by mail out-mail back. The mailing is done in two parts. Operations that overlap with the annual Floriculture survey are mailed in December of the reference year. The forms for the remaining operations are mailed in January. A second mailing is made to nonrespondents in February. A telephone follow up of operations not responding to the mailings is attempted to maximize response. In some special cases, personal visits are made. Sample weights of the reporting operations are adjusted to account for nonresponse.

PRODUCTS

The *Census of Horticultural Specialties* publication is released at the end of the year the data are collected. It is part of a series of publications from the census of agriculture and three follow on studies. It is labeled *Volume 3, Special Studies Part 2*. Data are provided for all items for the U.S. and by state. Some items must be suppressed to protect the confidentiality of individual operations.

USES

As the only source of detailed production, sales and economic data, the census of horticultural specialties provides important statistics to government, academia, the nursery and floriculture industry, and others regarding the size and structure of the industry for planning, policymaking, research, and market analysis.

SPECIAL FEATURES

RELATED PROGRAMS

Census of Agriculture
Floriculture
Nursery Production
Nursery and Floriculture Chemical Use

February 2003

CHICKENS AND EGGS

PURPOSE

The Chickens and Eggs report provides information on the current supplies of eggs and on future supplies based on the size of the laying flock, number of replacement pullets, and placements in breeding flocks.

COVERAGE

In December, a full survey targeting all flocks in the U.S. is conducted. Inventory estimates are made for all states. In all other months, all flocks with more than 30,000 layers are surveyed. Data for smaller operations are estimated using production trends of surveyed producers. Flocks with more than 30,000 layers account for over 80 percent of all layers.

CONTENT

Chickens and Eggs surveys cover number of eggs produced, rate of lay (eggs per layer), number of layers, number of pullets on hand, and forced moltings. Also, numbers of broiler and egg-type chicks hatched, eggs in incubators, and replacements for breeder supply flocks are provided.

FREQUENCY

Data are collected and published monthly with the prior month subject to revision. All monthly data are again subject to revision at the end of the marketing year.

METHODS

NASS maintains a list of chicken and egg contractor and independent producers in every state. Operations with an expected inventory of 30,000 chickens or more are surveyed monthly with a reference date of the first. Operations less than 30,000 are only surveyed in December. About 900 operations are mailed a questionnaire and nonrespondents are followed up with a phone call. Imputation methods are employed for operations not reporting using historical data and current data relationships for similar size operations. Reports received too late to be summarized for the current month are still processed for the next month and revised estimates may be published based on these data. Data are collected from about 330 hatchery operations with large broiler-type hatcheries contacted weekly and smaller ones and egg-type hatcheries contacted monthly. Data for hatcheries not reporting are estimated based on prior reports, capacity, seasonal changes, and changes shown for hatcheries reporting.

PRODUCTS

The *Chicken and Egg* report is published about the 20th of each month. The report contains estimates of layers, eggs per 100 layers, total egg production, and forced moltings for 30 major states, other States combined, and the United States. Previous month's estimates are also included regardless of whether they have been revised. The number of layers estimates for every month to date for the current year are also included.

USES

The industry uses the data to gauge current and future supplies of eggs and broilers expected to come to market. Producers use the data for business decisions. Economists and other analysts use the data to monitor the health of the industry and to compute the industry's contribution to the agricultural sector.

SPECIAL FEATURES

RELATED PROGRAMS

Weekly Broiler Hatchery
Poultry Slaughter
Poultry Production, Disposition, and Income

February 2003

COLD STORAGE

PURPOSE

The Cold Storage survey measures reserve food supplies held in commercial and public warehouses. These holdings are immediately outside of consumer pipelines.

COVERAGE

Over 1,000 commercial and public warehouses in the 48 states who store refrigerated products 30 days or more represent the target population.

CONTENT

The survey asks for inventories as of the last calendar day of the month for agricultural products, such as butter, American cheese and other natural cheeses, pork bellies and other pork products, controlled atmosphere apples, all vegetables, all fruits and berries, whole chickens and chicken parts, whole turkeys and turkey parts, and boneless beef.

FREQUENCY

Data are collected and published monthly. A 12-month summary of the previous calendar year is published each February.

METHODS

NASS maintains a list of cold storage facilities that store targeted products for 30 days or more. Questionnaires are mailed to about 800 firms monthly with telephone follow up to the larger nonrespondents. Data are received via e-mail from an additional 200 companies. Responses generally cover 70 percent of the U.S. storage capacity. Imputation is done for operations not reporting using historical data and current data relationships from similar size and type operations. Reports received too late to be summarized for the current month are still processed for the next month and revised estimates may be published.

PRODUCTS

The Cold Storage report is released around the 20th of the month. The report includes amounts in storage as of the last day of the previous month for about 200 items. Total space occupied is also reported. Estimates are made for 9 regions and the U.S. Revisions from the previous report are published at this time.

USES

The industry uses the data to gauge current supplies of products available to consumers. For some commodities, the estimates are factored into public price discovery. Producers also use the data for business decisions. Economists and other analysts use the data to monitor the health of the industry and to compute the industry's contribution to the agricultural sector. Data frequently supplement production, import, and export data in balance sheets.

SPECIAL FEATURES

Time and space permitting, special pages are included with historical changes in major commodities such as potatoes.

Biennially, a capacity survey is conducted to supplement the monthly updates of names and address for potential reporting firms. These data are used by firms planning to expand.

RELATED PROGRAMS

Livestock Slaughter
Manufactured Dairy Products
Dairy Product Prices

February 2003

COTTON GINNINGS

PURPOSE

The Cotton Ginnings survey obtains data mandated by Title 13, Section 42 U.S.C. to provide all segments of the cotton industry (producers, buyers, brokers, shippers, textile firms, and researchers) with quantities of baled cotton that are available by specific geographic areas within the U.S. on a regular and reoccurring basis.

The cotton ginnings survey program collects data used to measure monthly cottonseed prices, production, and disposition. Additionally, NASS uses these data as an aid in forecasting cotton production and preparing final state and county production estimates.

COVERAGE

All active gins for a given crop season are included in the survey. This includes gins in all 17 cotton producing states. The 17 states do not include Kentucky or Maryland, who produce a very minimal amount of cotton and are not generally considered as cotton producing states.

CONTENT

Gins provide the number of bales ginned to date and an estimate of how many more they expect to gin during the season. Gins also report the average price paid to producers for cottonseed.

On the end-of-season questionnaire, the gins report total pounds of lint cotton produced from the bales ginned; average weight per bale; and how many saw and roller ginning plants they operated during the season. A random sample of the gins is asked to report total pounds of cottonseed derived from the bales ginned, how many pounds of cottonseed were or will be delivered to oil mills; or used for feed, seed, or other uses.

FREQUENCY

The survey is conducted 13 times throughout each season. This includes August 1 (TX only) and September 1 (TX only), semi-monthly from September 15 through February 1, and an end-of-season questionnaire administered as each firm finishes ginning for the season.

METHODS

The cotton ginnings program is a census of about 1,000 active gins. Prior to the beginning of each ginning season, NASS supplements its list of gins from the previous season with a list supplied from each of the USDA's Agricultural Marketing Service (AMS) classing offices.

The survey reference dates for the 13 ginning surveys are August 1 (TX only), September 1 (TX

only), September 15, October 1, October 15, November 1, November 15, December 1, December 15, January 1, January 15, February 1, and the end-of-season (March 1).

The vast majority of data are collected via telephone, mail, and fax. Response rates to this voluntary survey are approximately 96 percent (prior to 1991, the Bureau of the Census had the authority to conduct this program under mandatory reporting laws).

PRODUCTS

Fourteen scheduled *Cotton Ginnings* reports are released each season. Thirteen semi-monthly reports are mandated by law (Title 13, Section 42 U.S.C.) issued in conjunction with the August through February *Crop Production* reports and on-or-near the 25th of each month during September through January. Additionally, an end-of-season release is published around the 25th of March. An *Annual Cotton Ginnings Summary* is released in conjunction with the *May Crop Production* report.

USES

Cotton ginnings reports provide reliable information for farmers; cotton buyers; bankers; credit associations; agricultural economists; farm organizations; and federal, state, and local policy makers. Ideally, when all participants in an industry are equally informed, no one is at a disadvantage due to uncertainty.

Cotton ginning reports provide a measure of the size of production or inventories so that prices can move in line with supply. Without good information, risks of doing business increase and costs rise.

Should a disaster occur in a specific cotton producing area, policy makers will have data available for that area to assist with disaster program implementation. Cotton markets can continue to operate on a stable basis since the uncertainty of supply by geographic areas is minimized. Private industry also use these data in their analyses and forecasts.

It is crucial that supply/demand information be distributed widely to all levels of the farming, ginning, warehousing, merchant, cooperative, and manufacturing sectors. This assures a competitive market structure far superior to one where either no one or only a few are informed.

SPECIAL FEATURES

RELATED PROGRAMS

Cotton Objective Yield
Agricultural Yield
Crops/Stocks

February 2003

CROP PROGRESS AND CONDITIONS

PURPOSE

To provide frequent and timely updates of farmer activities such as planting and harvesting, progress of crops through various phenological stages of development, and crop condition ratings throughout the growing season.

COVERAGE

All states participate in the survey. Each state maintains a list of reporters, largely county extension agents and Farm Service Agency staff, who are asked to report progress and conditions of selected crops in their county for the current week. Nearly every county in every state has at least one reporter. Reports returned each week account for over 75 percent of the acreage for major commodities.

CONTENT

There are two types of questions, crop progress and crop conditions. Reporters are asked to respond as of Sunday. Crop progress questions ask reporters to estimate the percent of a particular crop that is at or beyond a specified stage of development. Progress questions are grouped into two categories, human activity and phenological development. Human activity includes field tillage, spraying, planting, cultivating, harvest, pruning, etc. Phenological development includes crop emergence, maturation, and various reproductive stages. Crop condition questions ask reporters to estimate the percent of a particular crop that is in each of five condition categories ranging from very poor to excellent.

FREQUENCY

Crop progress surveys are conducted weekly from early April until late November. From December through March, field offices report on agricultural activities monthly.

METHODS

Data are collected through several modes. Reporters responding by mail complete the questionnaire on Friday and mail it back to the state office for inclusion in the summary the following Monday. The most common mode of data collection is through a secured internet site. Reporters are given a user ID and password that allows them access to the site and report as late as Monday morning. Some states collect data by phone, also on Monday. Some reports are submitted by facsimile and a few are sent by e-mail. All reports are processed by mid-day Monday and states submit their results to Headquarters by early afternoon. The official report must be prepared by 4:00 p.m. Eastern Time.

During the winter months, no formal survey is conducted. Field offices track farm activities during routine contacts within the industry. Each month, a summary report is submitted in advance of the *Crop Production* report.

PRODUCTS

The *Crop Progress* report is released at 4:00 PM every Monday afternoon from April 1 to November 30 or on Tuesday after a Monday holiday. Each issue has crop progress tables for major crops and may have as many as 10 crop condition tables, depending on the time of year. Each progress table lists the current week, previous week, previous year, and 5-year average for selected states and the U.S. The condition tables list the percent rated very poor, poor, fair, good, and excellent for the selected states and the U.S. Printed copies of the report are distributed to representatives of the media and agribusiness. The report is also loaded to the NASS website for access by the general public. In addition, several graphics are created from the progress and condition tables and these are loaded to the internet as well. In addition to the national *Crop Progress* report, each state office publishes a state release. Users may subscribe and receive a mail version of a state's release or access the state releases from the state office websites. States also produce a condensed summary which are merged together and published on the NASS internet website on the second business day each week.

USES

State and U.S. level progress and condition estimates are used by producers, agribusinesses, and traders to assess current growing conditions in order to reduce or eliminate inherent risks of doing business. Other users include federal, state, and local government agencies, educational institutions, agricultural economists, and others for planning, decision making, and research.

SPECIAL FEATURES

For major commodities, graphs are created that compare the accumulated progress through a particular phenological stage for the current year to the accumulated progress of the previous year and 5-year average. Weekly crop conditions are also graphed and compared with historical condition ratings.

The Weekly Weather and Crop Bulletin, compiled and distributed by the NOAA/USDA Joint Agricultural Weather Facility, reprints information from NASS from the *Crop Progress* report.

Information from the *Crop Progress* report is also published in the monthly *Crop Production* reports in the form of crop summary narratives.

RELATED PROGRAMS

February 2003

CROPS/STOCKS

PURPOSE

The Crops/Stocks surveys provide detailed estimates of crop acreage, yields and production, and quantities of grain and oilseeds stored on farms.

COVERAGE

The Crops/Stocks surveys are conducted in all states quarterly. Farm operations are selected from an area frame and a list frame to produce "multiple frame" estimates. Farm and ranch operators from the list frame are selected by size depending on the proportion of the commodities of interest the operation has in comparison with other operators on the list. The area frame sample is added to account for land not covered by the list frame. The sample targets producers of row crops and small grains and farms operations with grain storage capacity.

CONTENT

Operators provide data on the total acres they operate, acreage in each commodity of interest and amount produced at harvest. Grain and oilseeds stored are asked in amount stored of each grain or oilseed. Each state has a unique set of commodities asked depending on which commodity is grown in the state and at what acreage level. Commodities are collected according to their growing season. For instance, data for a small grain like winter wheat would be obtained in December, March, June, to determine acreage, and September to determine production. On the other hand, production of row crops like corn is not collected in September because they are not mature and will be harvested after the survey. Corn data are collected in March and June for acreage determination, and again in December after the majority of the crop is harvested and the production has been determined.

FREQUENCY

Crops/Stocks surveys are conducted four times per year. Farmers planting intentions are collected in March. Acres planted and acres expected for harvest are collected in June. Small grains acres harvested and production are collected in September, and row crop and hay production are collected in December. Information and grains or oilseeds stored on the farm for major commodities such as corn, soybeans, wheat, sorghum, barley, and oats are collected all four quarters, while specialty crops such as sunflower, rye, flaxseed, rapeseed, safflower, mustard seed, canola, and hay are collected once annually in selected producing states.

METHODS

Sample size targets are set for each commodity in the survey. The desired number of samples for each commodity are controlled with a minimum overall sample size. Total sample sizes range

from about 55,000 in September to about 79,000 in June because the number of crops of interest varies between quarters. In the Crops/Stocks survey, targeting is important for the row crops and small grains stocks panels, for rare commodities, and specialty crops. Specialty crops such as potatoes, can also be summarized as a separate survey to meet earlier publication dates.

Data are collected for approximately two weeks beginning the last day of the month prior to the survey reference date. Modes of data collection include mail, telephone, Computer Assisted Telephoning Interviewing (CATI), and personal interviewing. Over 75 percent of the data are collected by phone and CATI.

PRODUCTS

Data are used for U.S. and state estimates of acres planted, harvested, production, and on-farm grain stocks. Publications include the *March Prospective Plants, June Acreage, Small Grains Summary,* quarterly *Grain Stocks, Crop Production*, and *Crop Production Summary.*

USES

Data are used by commodity markets, educational institutions, state, and federal agencies, farm and ranch operators, and others for market assessment, planning, decision making and ongoing research.

SPECIAL FEATURES

RELATED PROGRAMS

Off-farm Grains Stocks
June Area

February 2003

DAIRY PRODUCTS

PURPOSE

The purpose of the Dairy Products survey is to provide information to help administer price support programs and by the dairy industry in planning, pricing, and projecting supplies of milk and milk products.

COVERAGE

The Dairy Products survey is a national program conducted monthly in all states. The scope of the survey includes over 1,100 cheese plants, butter plants, ice cream plants, and other facilities that commercially produce manufactured dairy products.

CONTENT

Dairy products statistics are collected monthly and used by USDA to establish estimates of stocks, shipments, prices received, and production for an entire month for such products as butter, cheese, dry whey, ice cream, and nonfat dry milk. Information on production of all other manufactured dairy products is collected, including ice cream novelties and water ices.

FREQUENCY

The survey is conducted monthly. However, some producers are only able to report annually or semi-annually, depending on production cycles. Those facilities that report monthly are not required to report again on the annual survey.

METHODS

The Dairy Products survey universe is all facilities in the United States which produce dairy products commercially, including producers, distributors, handlers, and processors. Data collection for the reference month begins around the third week of the following month because of the time needed for accounting to be completed by the facilities. Mail is the primary method of data collection due to the level of detailed information needed. Telephone contacts are made to encourage response.

PRODUCTS

To ensure complete coverage of all uses of milk, statistics are collected on all manufactured dairy products. The production of these products is converted to a raw milk basis to account for all methods of sales of milk.

USES

Uses of statistical information are extensive and varied. Production is an important aspect of price discovery for all products, including butter, cheese, and dry milk, which are purchased at support levels by the Agricultural Marketing Service. Producers use the information to determine production and marketing strategies. Producer organizations, financial institutions, traders, national policymakers, and foreign buyers and sellers are other important data users. Economists, analysts, and researchers interpret production data to project past and future trends, and determine the economic and social implications. State policymakers review the data to compare state trends and determine statewide policies affecting manufactured dairy production.

SPECIAL FEATURES

RELATED PROGRAMS

Dairy Products Prices
Milkfat Prices
Cold Storage
Milk Production

February 2003

DAIRY PRODUCTS PRICES

PURPOSE

Dairy Products Prices statistics are collected weekly and used by USDA to assist in the determination of the fair market value of raw milk. The "Dairy Market Enhancement Act of 2000", U.S. Code Title 7, Section 1627, required mandatory reporting of the price, quantity, and moisture content of butter, nonfat dry milk, cheddar cheese, and dry whey. Statistics from the Dairy Products Prices survey are used by the U.S. Department of Agriculture to implement the National Dairy Support Program.

COVERAGE

The Dairy Products Prices survey is a national program conducted weekly in all states. The scope of the survey includes cheese plants, butter plants, dry milk plants, and all other facilities that commercially produce and sell at least 1 million pounds of these manufactured dairy products. Specific, detailed criteria has been established to allow standard price discovery for current sales that best represent current price trends in the market. Because of the specific criteria for sales to qualify as usable data, sales volumes are a subset of the universe of national production.

CONTENT

Dairy products producers provide data for prices and volume of sales for cheddar cheese, nonfat dry milk, butter, and dry whey, as well as barrel cheddar cheese moisture content. The data are collected as weekly totals of pounds sold and dollars received.

FREQUENCY

The survey is conducted weekly and reporting is required by law.

METHODS

The Dairy Products Prices survey universe is all facilities in the United States which produce the specified dairy products commercially, including producers, distributors, handlers, and processors. Data collected for the latest week are published the following Friday. Facsimile, mail, and telephone data collection are used to speed movement of data from respondents.

PRODUCTS

Data are collected for cheddar cheese in 40 pound block and 500 pound barrel form, butter, nonfat dry milk, and dry whey for human consumption.

USES

The primary use of the dairy products prices statistics are by USDA to assist in the determination of the fair market value of raw milk. Producers also use the information to determine production and marketing strategies. Producer organizations, financial institutions, traders, national policymakers, and foreign buyers and sellers are other important data users. Economists, analysts, and researchers interpret production data to projects past and future price trends.

SPECIAL FEATURES

RELATED PROGRAMS

Dairy Products
Milkfat Prices
Milk Production

February 2003

FARM AND RANCH IRRIGATION

PURPOSE

The Farm and Ranch Irrigation survey provides detailed data relating to on-farm irrigation activities for use in preparing a wide variety of water-related programs, economic models, legislative initiatives, market analysis, and feasibility studies. The Farm and Ranch Irrigation Survey (FRIS) provides the only data that are complete, consistent, and accurate enough to be used for benchmarking on-farm irrigation measures over time.

COVERAGE

The FRIS is a follow on survey of the census of agriculture. The target population is all farms and ranches in the 50 states reporting irrigated land in the preceding census of agriculture except for horticultural specialty, institutional, experimental, and research farms. The data are also tabulated by 20 Water Resource Areas (WRA), similar to the 2-digit Hydrologic Unit Code.

CONTENT

The FRIS covers acres irrigated by land use categories, acres and yields of irrigated crops, quantity of water applied and method of application to selected crops, acres irrigated and quantity of water used by source, acres irrigated by type of water distribution system, and number of irrigation wells and pumps. Economic measures included in FRIS include cost of water purchased, capital expenditures, irrigation maintenance and energy costs, and measurement of factors which irrigators use to judge when to irrigate.

FREQUENCY

The FRIS is done every five years in the year following the census of agriculture.

METHODS

The reference period is the calendar year preceding the survey period. A sample of farms reporting irrigated acres is systematically selected covering about 7 percent of the total acres irrigated. A stratified sample design is employed which allows larger farms to be more heavily sampled. Data are collected by mail out-mail back with a telephone follow up of farms not responding. In some special cases, personal visits are made to maximize response. Sample weights of the reporting farms are adjusted to account for nonresponse.

PRODUCTS

The *Farm and Ranch Irrigation Survey* publication is released in October of the survey year. It is part of a series of publications from the census of agriculture and three follow on studies. It is

labeled *Volume 3, Special Studies Part 1*. Farm counts and totals are published by state, WRA, and a U.S. total.

USES

Several USDA agencies use the data for program development and administration. The Economic Research Service (ERS) relies on these data for providing essential data in their economic models which are used to analyze the impacts of proposed farm policies and regulation. The Natural Resource Conservation Service (NRCS) uses these data in appraising the status and condition of water and water use trends on non-federal lands. They are also using these data to plan and evaluate the national water-conservation program.

Other federal and state governmental units make use of the data. The United States Geological Survey is using these data for preparing national water summaries used by the Environmental Protection Agency, the Army Corps of Engineers, and other agencies for developing water-related programs. The Bureau of Reclamation of the United States Department of the Interior rely on these data for conducting feasibility studies of irrigation projects. Both the United States Congress and State legislative bodies are using the data for formulating and assessing natural resource legislation. State water resource agencies use the survey results for developing programs and preparing descriptive information.

Planning agencies are using information regarding water supplies and water use by state and water resource area for evaluating groundwater withdrawals, especially the depletion of groundwater reserves in the major irrigation areas. Irrigation system manufacturers and related businesses are using these data for monitoring trends in equipment use, irrigation expansions, and other market production related activities. Land Grant universities and other research organizations are using these data for studying irrigation technology development and adopting them to agricultural productivity.

Farmers and ranchers are using the cost-and-return data for determining the feasibility of investing in irrigation systems.

SPECIAL FEATURES

RELATED PROGRAMS

Census of Agriculture
Census of Horticultural Specialties
Census of Aquaculture

February 2003

FARM LABOR

PURPOSE

The Farm Labor survey provides estimates of number of hired workers, average hours worked, and wage rates at regional and national levels. Information is collected on the number of workers and their wages performing agricultural services on farms in California and Florida.

COVERAGE

The target population for the establishment portion of the Farm Labor survey is all farms with value of sales of $1,000 or more. The target population for the agricultural services is all operations that provide agricultural services to farmers.

CONTENT

Questions asked on the Farm Labor surveys include the number of all hired workers, hours worked by hired workers and wage rates.

FREQUENCY

Farm labor statistics are collected and published quarterly.

METHODS

Multiple sampling frames consisting of a list and area sample of nearly 1,700 are used by the Farm Labor survey. Operations in the area sample that are not on the labor list provide a measure of the incompleteness of the list frame.

The agricultural services portion of the survey is a sample of about 600 selected from a special list frame composed of agricultural services operations in California and Florida. Farms in the establishment survey are asked for names of agricultural service operations that performed services for them.

The method of data collection in most states is Computer Assisted Telephone Interview. The primary data collection method in California is mail. NASS and the California Employment Development Department (EDD) jointly estimate and publish farm labor statistics for the State of California. Personal interviews are reserved for special classes of nonrespondents, some large operators, and other special cases.

PRODUCTS

Farm labor estimates are published quarterly and annually. EDD publishes monthly labor statistics for California. Annual average estimates for number of all hired workers, hours worked by hired workers and wage rates are publish in the October *Farm Labor* report. Quarterly regional estimates are made for number of workers, average hours worked and average wage rates. Agricultural services estimates are for number of workers, average hours worked, and average wage rate.

USES

Farm employment and wage statistics are used by federal, state, and local government agencies, educational institutions, farm organizations, and private sector employers of farm labor. For example, agencies responsible for administering farm labor recruitment and placement programs use employment statistics in their planning and evaluation. Federal determination of wage rates for foreign farm workers consider NASS wage data. The wage rate index calculated from these data is a component of the Department of Agriculture's Parity Index.

The H-2A Program is the provision under the Immigration Reform and Control Act (IRCA) which allows admission of temporary non-immigrant alien farm workers to perform farm labor or services of a temporary or seasonal nature in the United States. To hire H-2A workers, the employer must apply to the Department of Labor for an H-2A labor certificate showing that: (1) there are not sufficient U.S. workers who are able, willing, and qualified, and who will be available at the time and place needed to perform labor or services involved in the petition; and (2) the employment of aliens in such labor or service will not adversely affect the wages and working conditions of the workers in the United States similarly employed.

Farm Labor survey collected data are used jointly by the USDA and the Department of Labor (DOL) to estimate the demand for, and availability of, labor for seasonal agricultural service crops specified in the IRCA.

SPECIAL FEATURES

RELATED PROGRAMS

June Area

February 2003

FIELD CROPS CHEMICAL USE

PURPOSE

The Field Crops Chemical Use survey (FCCUS) provides estimates of chemical and fertilizer usage on major field crops by farm operators. The FCCUS also provides estimates of the use of integrated pest management practices on the target crops. This survey is coordinated with the Field Crops Chemical Use data collected in Agricultural Resource Management Survey (ARMS) Phase II on a rotational basis. FCCUS is conducted each year for crops not in ARMS Phase II.

COVERAGE

Coverage for FCCUS includes those operations which grow the target crops in major producing states. The FCCUS core crops are corn, cotton, soybeans, wheat, and potatoes. When a crop is covered in the ARMS Phase II, it is omitted from the FCCUS. The FCCUS uses the same sample selected for the Objective Yield survey (OYS) for each target crop. The OYS includes operations that reported the target crops on the June surveys. The states to be included are determined based on their share of total U.S. production.

CONTENT

The FCCUS asks producers to provide the acreage of the target commodities grown during the year and the acreage that was treated with fertilizer and pesticide applications. For each chemical, the name, amount, method, and timing of application are collected. Use of pest management practices for the target crop(s) is also collected.

FREQUENCY

NASS conducts the FCCUS annually. Field crop chemical use data have been collected and published annually since 1990.

METHODS

The FCCUS uses the OYS samples for data collection efficiencies. The integration of these surveys provides an efficient method of collecting chemical application and pest management information. Given the complexity of data collection for chemical applications, personal enumeration is used to conduct the FCCUS.

PRODUCTS

The *Agricultural Chemical Usage, Field Crops Summary* is released in May. Major tabulations include percentage of acres treated by active ingredient by crop and by state, number of applications made by active ingredient by crop and by state, the pounds of active ingredient applied per application by crop and by state, and total amount of active ingredients applied by crop and state.

The Pest Management Practices are also included in the publication. Major tabulations are percentage of acres receiving practices by crop and by state. Management practices are grouped into four categories: prevention practices, avoidance practices, monitoring practices, and suppression practices.

USES

The Environmental Protection Agency (EPA), Agricultural Marketing Service (AMS), Food and Drug Administration (FDA), and the Economic Research (ERS) use the data published from this survey for product registration issues, risk assessments, benefit assessments, and for marketing commodities at the state, national, and international level. This survey is critical to growers who often have no alternative chemicals. Data compiled from the FCCUS provide "actual use" statistics used by EPA for product registration, re-registration, and alternative product identification. Without "actual use" data, EPA uses maximum rate and acreage in their risk analysis. These data are also used in the Food Quality Protection Act (FQPA) decision making process.

SPECIAL FEATURES

RELATED PROGRAMS

Agricultural Resource Management Phase II
Field Crops Objective Yield
Postharvest Chemical Use
Fruit and Nut Chemical Use
Vegetable Chemical Use
Nursery and Floriculture Chemical Use
Livestock Chemical Use

February 2003

FLORICULTURE

PURPOSE

The Commercial Floriculture survey provides the number of growers, area of production, quantity sold, percent of sales at wholesale, wholesale prices, wholesale value of production for floriculture commodities, and average number of agricultural workers per farm or ranch.

COVERAGE

The Commercial Floriculture survey is a census of over 10,000 commercial floriculture operations that produce and sell at least $10,000 of fresh cut flowers, potted flowering plants, foliage plants, annual bedding and garden plants, herbaceous perennials, cut cultivated florist greens or propagative floriculture material and unfinished plants in a year. "Sales" include retail and wholesale sales of items surveyed. A data series for five cut flowers began in 1956 in five states and has since expanded to cover 36 States and over 77 separate items.

CONTENT

The Commercial Floriculture survey data includes quantity and value for both retail and wholesale sales in different salable units (stems, bunches, pots, flats, or baskets). Also collected are the amount of area in production, the type of production (greenhouses, shade houses, open ground), total values of sales, and number of agricultural workers.

FREQUENCY

The Commercial Floriculture survey is conducted annually during the winter.

METHODS

List building is a significant requirement for a census project. All state offices in the program conduct significant list building efforts to identify all floriculture operations. Once list building is complete, all known operations (about 11,000) are eligible for data collection. Data collection begins the first week of January and concludes the end of February. The reference period is the preceeding year. The floriculture industry is widely varied from large corporate operations to small local greenhouses. All are contacted and considerable work is done to tailor the mode of data collection to the type of operation. Data collection methods include mail (35 percent), phone (45 percent), and personal interview (20 percent).

PRODUCTS

The *Commercial Floriculture* report is released in late April.

USES

Commercial floriculture estimates are used by all segments of the industry to plan for the future. Technology has changed production practices and tissue culture propagation has accelerated production. New products are being developed every year. To keep abreast of the rapidly changing industry, growers and suppliers need data. Individual growers can compare their own operation to other operations to help identify state and national trends as they plan the future of their business. These estimates are also used to support industry claims in cases involving unfair trade practices and in trade negotiations.

Government uses the data collected by this survey to measure the economic impact of the industry. The value of sales of floriculture crops continued upward in 2000 totaling $4.57 billion compared with $4.10 billion in 1999. This represents a significant contribution to farm income and the Gross Domestic Product.

SPECIAL FEATURES

This project garners significant industry support from many different organizations. Each year, nine association and organization leaders co-sign a letter of support which is sent to all prospective respondents urging them to cooperate.

RELATED PROGRAMS

Census of Horticultural Specialties
Nursery Production
Nursery and Floriculture Chemical Use

February 2003

FRUITS AND NUTS

PURPOSE

The Fruit and Nut surveys provide farmer and/or agri-business estimates and forecasts of crop acreage, yield, production, price, value of production, and disposition of the crop as a component of the process to estimate fruit and nut crop production levels, price, value, and disposition of the crop.

COVERAGE

The Fruit and Nut surveys are conducted in the major production states for each respective commodity. States survey all known commercial producers of fruit and nut commodities when only a small number of growers exist. For some commodities where a large number of producers exist in a given state, the state will conduct a probability survey or contact a sample of the growers to get production data.

CONTENT

Farm operators provide data for fruit and nut crops including apples, apricots, avocados, bananas, berries, cherries, cranberries, dates, figs, grapes, guavas, kiwifruit, nectarines, olives, papayas, peaches, pears, pineapples, plums, prunes, strawberries, grapefruit, K-early citrus, lemons, oranges, tangelos, tangerines, temples, almonds, hazelnuts, macadamia nuts, pecans, pistachios, and walnuts being produced on the operation.

Bearing acres, yield per acre, production, disposition, price, and value of production are the types of information collected for each crop from the producers and/or processors. A measure of change can be obtained by comparing previous season reports to current season or comparing within season reports.

FREQUENCY

The Fruit and Nut surveys vary in frequency by commodity. One or more forecast surveys are conducted during the growing season followed by an end of growing season survey and an end of marketing season or disposition survey for most fruit commodities. Some commodities only have an end of growing season and/or an end of marketing season survey. The timing of each survey is dependent on the growing and marketing season of that particular commodity.

METHODS

The forecast reference date for each fruit and nut commodity is the first of the month that the forecast report is published. Data collection for forecasts is to began no earlier than the 25th of the previous month for mail collection. Phone data collection begins no earlier than the 28th of the

previous month. Data collection concludes between the 5th and 8th of each month depending on the release date of the publication. End of season surveys are conducted shortly after the end of the growing or marketing season.

The primary methods of data collection are telephone interview and mail out/mail back data collection. Mail is emphasized as it is highly cost effective and a less burdensome method. However, in narrow data collection periods, the telephone is more effective. Personal interview data collection is used on a limited basis when coordination is needed across survey projects or when requested by the respondents.

Phone enumerators may use a software which allows the enumerator to verbally maintain a conversation with the respondent while following the instrument question text. Reported data are entered directly into an electronic format and the software performs simple consistency checks. In many cases the enumerator relays the question to the respondent from a paper questionnaire and records the response on the paper form. These forms are reviewed for consistency, then summarized.

PRODUCTS

The Fruit and Nut surveys produce results used to publish forecasts in the *Crop Production* report, the *Cranberries* report, or the *Cherry Production* report. End of growing or marketing season surveys produce results used to publish the *Noncitrus Fruits and Nuts* reports in January and July, or the *Annual Citrus* report in September.

USES

The Fruit and Nut surveys are a vital component of the estimation process for fruit and nut production estimates. The uses of the resulting publications are to provide critical information on acreage, yield, production, price, disposition, and value of production to the fruit and nut industry, growers, transportation companies, farm program analysis, and economic calculation.

Farm operators are the greatest benefactor of this data series. The estimates of production are the official, independent, and unbiased industry baseline. This kind of information is crucial in the price discovery process.

Crop production estimates are also valuable for producers and industry to plan the marketing and movement of the commodity throughout the year.

SPECIAL FEATURES

RELATED PROGRAMS

Fruit Chemical Use February 2003

FRUIT AND VEGETABLE CHEMICAL USE

PURPOSE

The Fruit and Vegetable Chemical Use surveys provide detailed estimates of chemical usage on fruit and vegetable crops by farm operators. These surveys are conducted on alternating cycles: the Fruit Chemical Use surveys are conducted in the odd numbered years, and the Vegetable Chemical Use surveys are conducted in the even years.

COVERAGE

Coverages for the fruit and vegetable chemical use surveys are those operations which grow targeted fruit or vegetable crops. The targeted fruit and vegetable crops are based on U.S. total production. With fruit production being relatively stable across years, NASS samples the operations on the NASS list frame that have previously reported fruit production. Vegetable crops, on the other hand, can be changed from year to year. In other words, a producer may grow carrots one year, and spinach the next. Therefore, NASS conducts a screening survey for the Vegetable Chemical Use survey. In this screening survey, producers that have previously reported having the targeted vegetable crops on the NASS list frame are surveyed to determine what vegetable crops are grown for the survey year.

CONTENT

Fruit and vegetable producers provide data on the acreage of the targeted commodities grown during the year, the targeted commodities that were treated with chemical applications, the name, amount, and method of application of all chemical products applied, and data on their operation's pest management practices. Fertilizer information is collected from the fruit and vegetable producers during every other survey cycle (every four years).

FREQUENCY

The Fruit and Vegetable Chemical Use surveys are conducted on an annual basis. As mentioned earlier, the Fruit Chemical Use survey is conducted in the odd numbered years, and the Vegetable Chemical Use survey is conducted in the even numbered years. In order to meet the needs of the Food Quality Protection Act (FQPA), the commodities surveyed are based on U.S. production of fruit and vegetable crops.

METHODS

Personal enumeration is used to collect the information needed on the chemical use surveys. Given the complexity of data collection for chemical applications, a time frame of approximately four months is used. The chemical application data may be obtained directly from the producers, from the custom applicators that keep records for the sampled operation, or in the case of

California, chemical application data are obtained from the California EPA. Reporting of chemical use data to the CAL-EPA is mandatory, therefore, burden to the producer is minimized. The mix of targeted fruit and vegetable crops are based on the individual state's production levels.

PRODUCTS

The *Agricultural Chemical Usage* reports for fruit and vegetables are released in July. Major tabulations include percentage of the targeted commodity acres treated with chemical applications by state, total amount of active ingredients applied by commodity and state, number of applications made by active ingredient, and the pounds per application of active ingredient applied by state and commodity.

USES

The Environmental Protection Agency (EPA), Agricultural Marketing Service (AMS), Food and Drug Administration (FDA), and the Economic Research Service (ERS) use the data published from this survey for product registration issues, risk assessments, benefit assessments, and for marketing commodities at the state, national, and international level. As stated earlier, these data are used in the Food Quality Protection Act (FQPA) decision making process for product registration, re-registration, and product alternatives. This survey is critical in this endeavor because many of the pesticides used on fruit and vegetable crops are classified as "minor use". Growers often have no alternatives to these chemicals. If re-registration is not allowed on products used on specialty crops, such an action could have serious consequences for both farmers and consumers since no alternatives are available.

SPECIAL FEATURES

RELATED PROGRAMS

Field Crop Chemical Use
Postharvest Chemical Use
Agricultural Resource Management, Phase II

February 2003

HOG INVENTORY

PURPOSE

The Hog Inventory surveys provide detailed inventory of breeding and marketing hogs and the future supply of market hogs on a quarterly/monthly basis. The United States Code, Title 7, Section 2204 authorizes the quarterly Hog Inventory survey while the monthly Hog Inventory survey was added under Section IX-Livestock Mandatory Reporting, Subtitle C-Related Swine Reporting Provisions, Section 931, Improvement of Hogs and Pigs Inventory Report.

COVERAGE

Hog owners, including contractors, are the target population. The sampling universe for the hog estimation program is all hog facilities with capacity to raise breeding or marketing hogs. A sample of hog operations from the list frame maintained by NASS is supplemented by a sample of area tracts to ensure complete coverage. All states are included in the December Hog survey while producers in the largest 30 hog producing states are surveyed during the following eleven months. Hog operations who own hogs in more than one state report inventories by state so the hogs and pigs are accounted for in the proper state.

CONTENT

For the quarterly hog surveys, nearly 16,000 hog owners are contacted for inventory as of the first of the month for (1) sows and gilts for breeding, (2) sows and gilts expected to farrow for the next six months, (3) boars and young males used for breeding, (4) weight groups of market hogs and pigs (under 60 pounds, 60 to 119 pounds, 120 to 179 pounds, and 180 pounds and over), (5) sows and gilts that farrowed during the previous three months whether the hog operation still owned, sold, or slaughtered the pigs, and (6) information on contractor/contractees.

For the monthly hog surveys, about 3,000 owners of breeding hogs are contacted to obtain information on number of pigs born in the previous month, number of females in the breeding herd, and the number of sows and gilts that were bred during the previous month.

FREQUENCY

The quarterly hog surveys are conducted in December (base month), March, June, and September. The monthly hog survey is conducted in all remaining months.

METHODS

The quarterly hog sample is drawn from the list of known hog owners on the NASS list frame. Owners are stratified by size of total inventory. Monthly survey samples are selected from the owners reporting breeding inventory on the quarterly hog survey.

Information for the quarterly and monthly hog surveys is collected by mail, telephone interview, and face-to-face interview.

PRODUCTS

NASS publishes a *Quarterly Hogs and Pigs* report with inventory and breeding information for each of the 17 largest hog producing states, accounting for over 90 percent of the total U.S. inventory. In addition, a combined total for all other states is estimated in order to publish U.S. level data. In December, NASS publishes hog information, by state, for all states. The *Monthly Hogs and Pigs* report provides information, at the U.S. level, on the hog breeding herd and the future supply of pigs available for market in the eight non-quarterly intervening months. All reports are released on the last Friday of the month.

USES

The primary data user is the producer to determine production and marketing strategies. Other uses are by the agricultural industry to assess markets and potential demand for products, by Federal government to analyze potential and actual production, and by foreign buyers of agricultural products. Federal agricultural agencies that use information from these surveys are the Economics Research Service, Foreign Agricultural Service, Agricultural Marketing Service, and Farm Service Agency. The Department of Commerce, Bureau of Economic Analysis, is a major non-USDA agency that uses the data to prepare national and regional estimates of farm income and production.

SPECIAL FEATURES

RELATED PROGRAMS

Meat Animals: Production, Disposition, and Income
Livestock Slaughter

February 2003

JUNE AREA

PURPOSE

The June Area survey is one of the largest annual NASS survey projects and provides significant utility for the entire NASS survey program. The data collected are used to supply direct estimates of acreage and measures of sampling coverage.

COVERAGE

The June Area survey utilizes an area sampling frame. The area frame consists of all land, stratified by land use, in all states except Alaska and Hawaii. The primary sampling units (PSU), based on land area, provide complete coverage of all agriculture activity occurring on that land and, therefore, provide complete coverage of all operators in the state.

A sample of over 10,000 segments, smaller units of a PSU measuring roughly one square mile, are selected from each land use stratum for data collection. All farm operators operating within the boundaries of the selected segments are interviewed. In a given year, approximately 80,000 agricultural and non-agricultural land use tracts are identified within the sampled segments. From that identification, over 40,000 detailed personal interviews are conducted with farmers operating farms inside the segment boundaries or who have the potential to qualify as a farm.

Every five years, over 2,000 extra segments are sampled to supplement census coverage measures.

CONTENT

The June Area Survey is designed to account for every acre of land, all agricultural activities, and land uses within segment boundaries. Crop acreage, genetically modified crop acreage, grain stocks, cattle inventory, hog inventory, sheep inventory, poultry inventory, land values, cash rents, farm numbers, and value of sales data are collected. The diverse range of items is needed for direct estimation requirements and sample design needs for projects later in the survey year.

FREQUENCY

The June Area survey is conducted annually.

METHODS

Data collection for the June Area survey is completed entirely by personal interview during the first two weeks of June. Personal interviews must be conducted since operators within the selected segments are not known until significant screening is completed. Also, respondents must examine an aerial photograph to identify each field boundary and report the crop planted. Acreage data refer to the current crop year, while livestock and stocks data refer to June 1.

The June Area frame survey provides direct estimates for several projects and generates a unique population of respondents. Those operations which did not have the opportunity to be sampled from the list frame comprise the non-overlap (NOL) domain. The NOL domain, identified from this survey, is used as a sampling source to calculate an incompleteness measure for multiple frame estimates for no fewer than 19 major survey projects. This domain also provides NASS the ability to be responsive to the data needs of state and federal cooperators by ensuring complete sampling coverage for multiple reimbursable survey projects. The detailed crop acreage data are also used as a sampling source for several of the Objective Yield Surveys.

PRODUCTS

The June Area Survey provides direct estimates or is a component of data collection and estimation for the following publications: *June Acreage*, *January* and *July Cattle Inventory, Quarterly Labor, Annual Small Grains Summary, Crop Production Summary (Jan), Monthly* and *Quarterly Hog and Pig Inventory, July* and *January Sheep Inventory, Farm Numbers and Land in Farms, Cash Rent and Land Values,* and *Agricultural Resource Management.*

USES

Modern agriculture increasingly calls upon NASS to supply reliable, timely, and detailed information. The wide range of crop, livestock and economic statistics contained in these reports help develop a stable economic atmosphere and reduce risk for production, marketing, and distribution operations. Economic data and statistics on rural America are becoming increasingly important. The June Area survey will continue to play a critical role in the expansion of those program areas.

SPECIAL FEATURES

The June Area survey provides "ground truth" for several remote sensing projects and Geographic Information System research and products, and other research projects.

RELATED PROGRAMS

Cattle Inventory
Agricultural Labor
Hog and Pig Inventory
Sheep and Goat Inventory
Agricultural Resource Management
Crops/Stocks
Objective Yield
Census of Agriculture

February 2003

LIVESTOCK CHEMICAL USE

PURPOSE

The Livestock Chemical Use surveys provide detailed estimates of chemical usage on livestock and livestock facilities. These surveys are the basis for factual information on the types and quantities of chemicals applied to animals and their surroundings as well as producer practices.

COVERAGE

The Livestock Chemical Use survey covers all major livestock species on an annual rotation. The survey is combined with the National Animal Health Monitoring System (NAHMS) survey NASS conducts for the Animal and Plant Health Inspection Service (APHIS) on a cost reimbursable basis. The species rotation is defined by APHIS. Species covered by NAHMS have included cow-calf, cattle on feed, dairy cattle, hogs, sheep, chickens, and equine. The states included in each survey are the same as those covered by the base annual inventory survey for the species.

The survey only covers insecticides applied to the livestock and the facility to control external pests over a full year. It does not include pharmaceuticals, disinfectants, and sanitizers.

CONTENT

Data are collected on products used, formulation (dry or liquid), number of head treated, rate per head per application, total amount applied per application, and number of applications for products applied to animals. For applications made to facilities, items asked are type of facility, product used, formulation, total amount applied, and number of times applied.

FREQUENCY

The Livestock Chemical Use survey is conducted annually for one species on a rotational basis. A particular species would rotate in about every five years.

METHODS

The Livestock Chemical Use has been integrated with NAHMS since 2000. The combined NAHMS and Chemical Use questionnaire is called the General <species> Management Report (GMR). Enumerators attempt to collect the GMR at the same time as the inventory survey. Personal enumeration is recommended for the GMR. Respondents may complete the inventory survey and defer the GMR to a later appointment. The data collection period last four to six weeks. Data are checked for internal consistency and compared to manufacturer's recommendations to determine reasonableness.

PRODUCTS

The *Agricultural Chemical Usage* reports for livestock are released in May. Major tabulations include total pounds applied plus pounds applied, rate per head per application, rate per head per year by active ingredient for the U.S. Also included are percent of applications by method of application. For facilities, total amount applied by active ingredient is published. The inventory estimates by state are reprinted in each publication.

USES

Producers and suppliers use the data to monitor practices and trends and for making business decisions. Government agencies use the data for product registration issues, risk assessments, benefit assessments, and worker safety issues. Economists and other analysts use the data as part of their overall studies of the agricultural sector.

SPECIAL FEATURES

RELATED PROGRAMS

Field Crop Chemical Use
Postharvest Chemical Use
Agricultural Resource Management, Phase II
Fruit and Vegetable Chemical Use

February 2003

LIVESTOCK SLAUGHTER

PURPOSE

Data from federally and non-federally inspected slaughter plants are used to estimate total red meat production. This estimate consists of reporting the number of head slaughtered plus live and dressed weights of beef, veal, pork, lamb, mutton, goats, equine, and bison.

COVERAGE

Livestock slaughter data are collected from nearly 900 federally inspected plants and over 2,300 plants under state inspection. Over 95 percent of the total U.S. slaughter for any species is under federal inspection.

CONTENT

The number of head slaughtered plus live and dressed weights of beef, veal, pork, lamb, mutton, are reported. Information from federally and non-federally inspected slaughter plants is then summarized and used to estimate total red meat production. Additionally, number of head of goats, equine, and bison are reported.

FREQUENCY

Federally inspected data are summarized weekly and accumulated to a monthly total for the monthly release, while non-federally inspected data are summarized monthly only. An annual summary publication is released in March.

METHODS

Primary data for the commercial livestock slaughter estimates are obtained from the Weekly Livestock Slaughter Report (LS-149), completed by inspectors from the Food Safety and Inspection Service (FSIS), USDA, which provide actual counts of animals slaughtered in federally inspected plants. These counts are combined with data from state-administered non-federally inspected slaughter plants to derive total commercial slaughter estimates. The LS-149 forms collect number of head slaughtered daily under federal inspection by species and class as well as head kill after condemnation and total live and dressed weights. Data for missing forms are imputed using the data history of the missing plant.

PRODUCTS

Preliminary weekly totals are published by USDA's Agricultural Marketing Service in *Livestock, Meat, Wool Market News, Weekly Summary and Statistics*. Monthly and annual totals are published by NASS in the *Livestock Slaughter* release.

USES

Livestock estimates provide USDA and the livestock industry with basic data to project future meat supplies and producer prices. Agricultural economists in both the public and private sectors use this information in economic analysis and research.

Slaughter data from federally inspected plants are important to the Food and Safety and Inspection Service and in fulfilling its responsibilities mandated by the Federal Meat Inspection Act (21 USC 620 and 661).

SPECIAL FEATURES

RELATED PROGRAMS

Hog Inventory
Sheep Inventory
Monthly Cattle on Feed
Cattle Inventory
Meat Animals: Production, Disposition, and Income

February 2003

MILK PRODUCTION

PURPOSE

The Milk Production surveys provide information for estimating total milk production, number of milk cows and milk production per cow. Estimates are published monthly for the 20 largest milk producing states, which account for 86 percent of the nation's milk production. U.S. level data are also estimated and published monthly. Quarterly estimates are published for all states.

COVERAGE

The Milk Production survey samples are selected from each state's list of dairy producers. The sample is randomly drawn from the list of milk producers. When feasible, NASS utilizes state or federal administrative data, rather than conducting a monthly or quarterly Milk Production survey, to estimate milk production and milk cow inventory.

CONTENT

Monthly and quarterly Milk Production surveys collect information on the (1) number of cows milked yesterday; (2) number of all milk cows in the herd yesterday; and (3) total milk produced yesterday. Information on milk cow replacement prices are collected each quarter. In April and October, producers provide information on the amount of milk used on the farm for food or drink and the amount fed to calves.

FREQUENCY

The quarterly Milk Production survey is conducted in January, April, July and October. The monthly Milk Production survey is conducted in all other months.

METHODS

The Milk Production survey is mainly a mail survey. Questionnaires are mailed to a sample of dairy producers about the 21st of the month. States conduct a nonresponse telephone follow-up to ensure sufficient data are obtained.

Phone enumerators utilize Computer Assisted Telephone Interviewing (CATI), a sophisticated software which allows them enter reported data directly into an electronic format. The software performs simple consistency checks as well as checks against previously reported data which reduces the need for follow-up contacts with the respondent.

Simple models are used to estimate for the states not in the monthly program. Milk cow estimates from the Cattle Inventory surveys provide an independent check against the milk production survey data.

PRODUCTS

NASS publishes a *Milk Production* report each month with total monthly milk production, milk produced per cow during the month, and average number of milk cows in the herd during the month for each of the 20 largest milk producing States. U.S. level data are also estimated and published monthly. Each quarter, the *Milk Production* report includes quarterly production and inventory information by state, for all states. The February report contains the previous years' annual totals. All reports are released around the middle of each month.

USES

Statistics on milk production are used by the U.S. Department of Agriculture to carry out the National Dairy Support Program. In addition, the statistics are used extensively by the dairy industry in planning, pricing and projecting supplies of milk and milk products. Dairy producers also utilize the reports to determine production and marketing strategies.

SPECIAL FEATURES

RELATED PROGRAMS

Milk Production, Disposition and Income
Monthly Dairy Products
Cattle Inventory

February 2003

NURSERY AND FLORICULTURE CHEMICAL USE

PURPOSE

The Nursery and Floriculture Chemical Use surveys provide detailed information on chemical use and pest management practices in the nursery and floriculture industries. The data are used by EPA to conduct risk analysis regarding environmental impact and worker exposure to chemicals. The data are also used by industry organizations and the EPA for economic impact analysis and improved product labeling. The survey was conducted for the first time in the spring of 2001 and referenced chemical use for the 2000 calendar year. This is the first comprehensive study of chemical use and pest management practices used in the nursery and floriculture industries.

COVERAGE

Nearly 3,800 operations from the six largest producing nursery and floriculture states representing different types of products and production practices are surveyed. The six states involved are California, Florida, Michigan, Oregon, Pennsylvania and Texas. These six states account for nearly 70 percent of nursery gross value of sales and over 50 percent of floriculture gross value of sales. Any operation from these states that had gross sales in excess of $10,000 for either nursery or floriculture crops had the opportunity to be selected for this survey.

CONTENT

Chemical data collected include product name, what it was applied to, where it was applied, how much area was treated, the rate of application, number of times applied, method of application, who applied it, and total quantity used. Questions about pest management practices are also included. The survey collected chemical use as applied to sixteen different plant production categories and areas not currently producing plants.

FREQUENCY

The first time NASS collected chemical use and pest management data from nursery and floriculture operations was 2001. The next survey is planned for 2004 to obtain use for the 2003 reference year.

METHODS

This survey collects total chemical usage and pest management practices by sampled operations for an entire year to all nursery and floriculture crops and non-producing areas. The questionnaire is formatted in a way to emulate some of the standard record keeping forms used by this industry and provide needed flexibility in reporting capabilities and units. This approach allows the operators to return to work, while enumerators examine their chemical use records and transcribe data into the questionnaire, thus minimizing the burden on the operator. Some firms who use

computerized record keeping systems are able to provide us with electronic data that we load into our edit system after some manipulation. Data are collected by personal enumeration.

PRODUCTS

NASS publishes the *Nursery and Floriculture Chemical Use Summary* in December. The published report includes: levels of pest management practices by state and six state total; total pounds of chemicals applied by pesticide class at the plant production category and total floriculture and nursery levels; percent of operations using each chemical by plant production category and all floriculture and nursery, by state and six state total; chemical application rate and total pounds applied by plant production category, all floriculture and all nursery and all non-production areas, six State total; percent of applications by type of applicator by production category, six State total; percent of operation by method of application by production category, six State total; percent of operations by where applied by production category, six State total, and a listing of all chemicals and corresponding trade names reported in the survey.

USES

Representatives of nursery and floriculture producers and distributors have strongly supported implementation of this program, largely to establish facts about their industry's use of agricultural chemicals and alternative pest management strategies. Agencies within USDA and Land Grant Universities use the published data to establish educational programs and provide production and economic guidelines. The EPA uses the data for product registration issues and risk and benefit assessments. Growers and chemical manufacturers use the data to assess market trends, future needs and product alternatives. The general public is served by the availability of factual information on nursery and floriculture products purchased in everyday life.

SPECIAL FEATURES

This is the first comprehensive source of information on chemical usage and pest management practices by the nursery and floriculture industry.

RELATED PROGRAMS

Floriculture
Nursery Production
Census of Horticultural Specialties
Fruit and Vegetable Chemical Use
Field Crops Chemical Use
Post Harvest Chemical Use
Livestock Chemical Use

February 2003

NURSERY PRODUCTION

PURPOSE

The Nursery Production survey (NPS) provides estimates of the numbers of nursery producers, production area, hired workers, sales and inventory by plant category for the 17 largest producing states. This survey was conducted for the first time in the spring of 2001 for calendar year 2000 data.

COVERAGE

Over 6,500 operations with total gross sales of $10,000 or more from the 17 largest nursery producing states, as identified during the Census of Horticultural Specialties, are included in the survey. The 17 states are: Alabama, California, Connecticut, Florida, Georgia, Illinois, Michigan, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, Tennessee, Texas, and Washington.

CONTENT

Total production area and the average number of part-time and full-time hired workers are collected from each operation with gross sales of $10,000 or more. Additionally, operations with gross sales of more than $100,000 report the following details by seven product categories: number sold, gross sales, percent sold wholesale, number on hand and value on January 1, and sales expectations. The categories are: broadleaf evergreens, coniferous evergreens, deciduous shade trees, deciduous flowering trees, deciduous shrubs and other ornamentals, fruit and nut plants, and Christmas trees. Gross sales and percent sold wholesale are collected for transplants for commercial truck crop production and propagative material or lining-out stock.

FREQUENCY

The 2001 survey was the first conducted. A future schedule for this survey has not been determined.

METHODS

Data collection methods include mail, phone, and personal interview. The mode of data collection is tailored to the nursery industry's diversity to address the variability from large corporate operations to small local greenhouses.

PRODUCTS

Results are published in *Nursery Crops, Summary* released in August. Major tabulations include number of operations with hired workers and average number of workers by sales category;

number of operations by sales category and by state, gross sales and percent sold wholesale for transplants for commercial truck crop production and propagative material or lining-out stock; number sold, gross sales, percent sold wholesale, number on hand and value on January 1; and sales expectations for broadleaf evergreens, coniferous evergreens, deciduous shade trees, deciduous flowering trees, deciduous shrubs and other ornamentals, fruit and nut plants, and Christmas trees.

USES

Nursery production estimates are used to keep abreast of the rapidly changing industry. Survey results help identify state and national trends in areas such as new product development and changing production practices so that growers can plan the future of their business. These estimates are also used to support industry claims in cases involving unfair trade practices and in trade negotiations. The data collected by this survey also measure the economic impact of the industry both by value of sales of nursery crops and by number of hired workers.

SPECIAL FEATURES

The first NPS covered calendar year 2000 production. It is the only measure of the national nursery industry between each Census of Horticultural Specialties.

RELATED PROGRAMS

Floriculture Production
Census of Horticultural Specialties
Nursery and Floriculture Chemical Use

February 2003

OBJECTIVE YIELD

PURPOSE

The Objective Yield (OY) surveys provide data for monthly forecasts and end-of-season estimates of planted and harvested acres, yield and production of winter (w), durum (d), and other spring (s) wheat, corn for grain, soybeans, fall potatoes, and upland cotton.

COVERAGE

All acres for harvest as grain in the leading producing states are eligible for this survey. The following table shows the states currently included in the OY program.

Corn	Cotton	Soybeans	Wheat	Potatoes
Illinois	Arkansas	Arkansas	Colorado (w)	Idaho
Indiana	California	Illinois	Illinois (w)	Maine
Iowa	Georgia	Indiana	Kansas (w)	Minnesota
Minnesota	Louisiana	Iowa	Minnesota (s)	North Dakota
Nebraska	Mississippi	Minnesota	Missouri (w)	Oregon
Ohio	North Carolina	Missouri	Montana (w s)	Washington
Wisconsin	Texas	Nebraska	Nebraska (w)	Wisconsin
		Ohio	North Dakota (d s)	
			Ohio (w)	
			Oklahoma (w)	
			Texas (w)	
			Washington (w)	

CONTENT

The operator is interviewed to verify acreage reported on the parent survey and obtain permission to enter the sample field to make counts and measurements. Monthly plant and fruit counts, fruit measurements, and maturity determinations are made until the crop is mature or harvested. At maturity or immediately before harvest, a final crop cutting is made. Sample fruit (ears, pods, bolls, heads, or tubers) are sent to a lab to determine fruit weight, threshed grain weight, and moisture content. A postharvest visit is made to glean fruit left in some sample fields.

METHODS

Fields for corn, cotton, soybeans, durum and spring wheat are selected from June Area survey tracts with planted acres of the commodity of interest. Winter wheat samples are selected from March Crops/Stocks reports with winter wheat planted for harvest as grain. Potato samples are selected from June Crops/Stocks survey operators reporting fall potato acreage for harvest.

Data must be collected using personal visits to the field. These visits are made monthly with the final visit occurring when the crop is mature or the farmer plans to harvest.

Counts and weights are expanded to a per acre yield and adjusted to a standard moisture for the commodity. Estimates of harvest loss are computed and subtracted from the biological (gross) yield of the harvest plots to determine net yield per acre.

FREQUENCY

The Objective Yield survey field work begins April 25 for winter wheat, and July 25 for all the other crops. Sample units are visited at the end of each month during the growing season.

PRODUCTS

Monthly production forecasts are published in the *Crop Production* release. End-of-season estimates are issued in the September *Small Grains Summary* and in the mid-January *Crop Production Summary.*

USES

Farmers and businesses use the production estimates for marketing decisions, to evaluate expected prices, and to determine when to sell. Congress takes into account changing yield and production levels in formulating farm legislation. USDA production forecasts are used to anticipate loan receipts and pricing of loan stocks for grains.

Production forecasts are greatly relied upon by the transportation sector, warehouse and storage companies, banks and other lending institutions, commodity traders, and processors. Those in agribusiness who provide farmers with inputs, equipment, and other goods and services study reports when planning their marketing strategies. Analysts transform the statistics into projections of coming trends, interpretations of the trends economic implications, and evaluations of alternative courses of action for producers, agribusinesses and policy makers.

SPECIAL FEATURES

NASS and the World Agricultural Outlook Board have jointly produced *Understanding USDA Crop Forecasts* (Miscellaneous Publication No. 1554, March1999) which provides additional insight into the crop forecasting program of the USDA.

A NASS report titled *The Yield Forecasting Program of NASS* (July 1998) provides a detailed and mathematical discussion of the yield forecasting and estimating program.

RELATED PROGRAMS

Agricultural Yield
June Area
Crops/Stocks

February 2003

OFF-FARM GRAIN STOCKS

PURPOSE

The Off Farm Grain Stocks surveys provide detailed estimates of grain and oilseeds stored in any commercial facility off the farm.

COVERAGE

Off-farm stocks are estimated in every State for each crop except rye. Minnesota, North Dakota, and South Dakota are only States estimating rye stocks. Grain stocks frequently move to areas other than where produced, thus requiring coverage by all States to fully account for all off-farm stocks. The target population is all commercial grain storage operations, including grain and oilseed processing plants, terminals, and any other facilities that store grain or oilseeds (excluding peanuts and rice) that would not be classified as a farm.

CONTENT

Operations are asked to report the quantity of grains and oilseeds on hand as of the reference date. Questionnaires contain all commodities included in the U.S. stocks estimating program: barley, canola, corn, flaxseed, mustard seed, oats, rapeseed, rye, safflower, sorghum, soybeans, sunflower, and wheat and include capacity questions and questions about old crop stocks and new crop stocks.

FREQUENCY

Off-Farm Grain Stocks surveys are conducted four times per year: March, June, September, and December. The reference date is always the first of the respective month.

METHODS

An attempt is made to contact nearly 9,700 off-farm storage facility by mail, phone, or personal visit each quarter. In some instances, company headquarters prefer to report for multiple plants or several line facilities. Adjustments are made for non-reporting facilities based on capacity data, previously reported data, and relationships that exist for reporting firms of similar size and type to ensure all stocks are accounted for.

PRODUCTS

These data are combined with On-Farm Stocks estimates, and published in the *Grain Stocks* report, which is normally released at the end of the month containing the reference date. The only exception is for the December 1 reference date, which is released in January.

USES

Data are used by commodity markets, educational institutions, state and federal agencies, farm and ranch operators, and others for market assessment, planning, decision making, and on-going research. Grain stocks are an essential component of supply and demand balance sheets required to monitor food security and to enhance efficient global marketing.

SPECIAL FEATURES

RELATED PROGRAMS

Crops/Stocks

February 2003

POSTHARVEST CHEMICAL USE

PURPOSE

The Postharvest Chemical Use survey provides detailed estimates of postharvest chemical usage on selected farm commodities by off-farm storage facilities. The survey addresses food safety requirements of the Food Quality Protection Act.

COVERAGE

The population of interest is off-farm storage facilities such as grain elevators, terminals, warehouse, and other facilities that handle the commodities of interest during the survey year.

CONTENT

Off-farm storage facility operators provide data on the quantity of the commodities of interest handled during the year, the amount of the commodities that were treated with chemical applications, the name, amount, and method of application of all chemical products applied, and data on their operation's pest management practices.

FREQUENCY

The Postharvest Chemical Use survey (PHCUS) is conducted on an annual basis. The commodities surveyed change from year to year. Commodities included in previous PHCUS were: apples and potatoes in 1997, off-farm corn and wheat storages in 1998, off-farm oats and soybean storages in 1999, off-farm rice and peanut storages in 2000, and off-farm wheat storages in 2001.

METHODS

Off-farm storage facilities that have reported positive stocks during the year for the commodities of interest on other NASS stocks or storage surveys are eligible to be sampled for the PHCUS. A personal enumeration survey is used to collect the information needed on the PHCUS. Given the complexity of data collection for chemical applications, a time frame of approximately two months is used.

PRODUCTS

In general, the *Agricultural Chemical Usage, Postharvest Applications* results are published in the month of March following data collection and summarization. Major tabulations include percentage of the commodity treated with postharvest chemical applications by commodity and state, total amount of active ingredients applied by commodity and state, and the percent of operations conducting specific pest management practices by commodity and state.

USES

The Environmental Protection Agency (EPA), Agricultural Marketing Service (AMS), Food and Drug Administration (FDA), and the Economic Research Service (ERS) use the data published from this survey for product registration issues, risk assessments, benefit assessments, and for marketing commodities at state, national, and international levels. As stated earlier, these data are used in the Food Quality Protection Act (FQPA) decision making process for product registration, re-registration, and product alternatives.

SPECIAL FEATURES

RELATED PROGRAMS

Field Crop Chemical Use
Fruit and Vegetable Chemical Use
Agricultural Resource Management, Phase II

February 2003

POULTRY SLAUGHTER

PURPOSE

The Poultry Slaughter survey provides the number of chickens (young and mature), ducks, turkeys, and other poultry slaughtered under federal inspection in the U.S.

COVERAGE

Poultry slaughter data are collected for the entire U.S. from over 350 plants inspected by the Food Safety and Inspection Service (FSIS). Over 99 percent of the total U.S. slaughter for all species is under federal inspection.

CONTENT

The Poultry Slaughter report obtains the number of head slaughtered, total pounds of live and dressed weights, average liveweight, and total pounds of condemned meat by specie.

FREQUENCY

Federally inspected data are summarized monthly immediately before the release. An annual summary is compiled in April.

METHODS

The FSIS plant inspectors submit forms (FSIS 6000-21) reporting the number of head slaughtered weekly under federal inspection by species and class. These reports also include condemnations and total live and dressed weights. When inconsistencies in the data are detected, the reports are returned to the inspectors for correction. Inspectors correct or validate the report and resubmit it.

The reports cover weekly activities through Saturday night with weekly reports allocated to the appropriate month. NASS runs all data through a computer edit to check for errors and inconsistencies with historical data. The edit also checks for plant identification, duplication of reports, and erroneous data. Before summary totals are created, the edit also checks for missing reports. Estimates are made for missing reports or missing items for reports that are not resubmitted by FSIS inspectors. Late reports are entered into the system when received and new totals are generated for the next report.

Poultry slaughter estimates are based on a census of slaughter plants, therefore, there is no sampling error associated with the report. However, some reporting errors or omission of data may occur with minimal effect because of the quality checks involved in creating this report.

PRODUCTS

The *Poultry Slaughter* report is released on the first Friday of each month. The annual summary is released on the first Friday in March. Each monthly report contains estimates for the previous month and revisions for one month earlier. Preliminary weekly totals are published by USDA's Agricultural Marketing Service on their website at www.ams.usda.gov/poultry/. After entering the site go to market news; report summaries; weekly slaughter report.

USES

Poultry slaughter estimates provide USDA and the poultry industry with basic data to measure the flow of meat to the market, to analyze trends, and to project producer prices. Agricultural economists in both the public and private sectors use this information in economic analysis and research.

SPECIAL FEATURES

RELATED PROGRAMS

Broiler Hatchery
Chickens and Eggs
Turkey Hatchery
Turkeys Raised
Poultry Production, Disposition, and Value

February 2003

PRICES PAID AND PRICES PAID INDEXES

PURPOSE

The Prices Paid survey for agricultural chemicals, fuels, feed, fertilizer, new machinery, and seed provides U.S. and specified Regional average prices. Monthly Prices Paid Indexes measure the relative change in level of prices paid by farmers and ranchers for components of farm inputs, interest, taxes, wage rates, and family living items, as compared to similar prices during a base period, 1910-14=100 and 1990-92=100.

COVERAGE

The Prices Paid survey is conducted in the 48 contiguous states. The items covered by the survey differ between states, as not all states survey all six categories. Approximately 135 items are surveyed to represent production input items purchased by farmers and ranchers.

CONTENT

The Prices Paid survey for agricultural chemicals, fuels, feed, fertilizer, new machinery, and seed provides U.S. and regional average prices. Businesses are asked for the average price paid by farmers for recent sales. The U.S. average prices are used to calculate base month component and subcomponent indexes of the Prices Paid Index for Production Items to measure the relative change in prices paid for various component groups of items used in agricultural production.

The overall Prices Paid Index for Commodities and Services, Interest, Taxes, and Farm Wage Rates (PPITW) is composed of five major groups: 1) prices paid for family living items, 2) prices paid for farm production items, 3) interest paid and interest rate on farm indebtedness, 4) taxes on farm real estate, and 5) wage rates paid to hired farm labor. The production items represent about 67 percent of the overall index, while family living accounts for about 18 percent, and interest, taxes, and wage rates 15 percent.

FREQUENCY

The Prices Paid survey is conducted every April. Prices Paid Indexes are updated in other months using producer Price Indexes from the Bureau of Labor Statistics (BLS) sources. An annual summary is released in mid-July of the following year.

METHODS

The target population is retail outlets or establishments where farmers purchase farm production inputs in the 48 states. The prices paid data are obtained from a survey panel of approximately 8,500 businesses. These firms are selected from lists by type of item sold. Survey response rates are 75 to 80 percent. Firms are asked to report the price for the specified item "most commonly

bought by farmers" or that was the "volume seller." The survey reference period for most items is 5 business days centered around the 15th of the month. Average prices reported are aggregated to the region and U.S. level using weights available from expenditure data and other sources. The changes in price level for individual items are combined to the regional and U.S. levels and published as indexes referenced to a base period. Monthly prices paid indexes are updated using changes measured in the Prices Received program and selected BLS Producer Price Indexes.

PRODUCTS

The monthly *Agricultural Prices* report contains Prices Paid indexes, including component and subcomponent indexes. Specific U.S. and regional price estimates from the Prices Paid surveys are published in the April report. Feeder livestock price estimates, feed-price ratios, and current Prices Paid Indexes are published each month. January, April, July, and October reports provide revised data tables (4 years to current) for all indexes. The *Agricultural Prices Summary* for the previous year, issued in July, provides a recent history of U.S. and regional prices, feed-price ratios, and component and subcomponent indexes and will contain all revisions to the indexes.

USES

Prices paid indexes are used to compute Parity Prices under the Agricultural Adjustment Act of 1938 as amended, Title III, Subtitle A, Sections 301a. The Agricultural Marketing Service uses state milk marketing orders, prices paid indexes, and import prices to determine support prices.

Private grazing fee data are published annually in the January *Agricultural Prices* under an agreement with the Forest Service and Bureau of Land Management. Private grazing fees, the November-October average beef cattle price, and the Beef Cattle Production Index (1964-68=100) are used to determine the federal grazing fee lease rate under the Public Rangeland Improvement Act.

Average prices for selected machinery, fertilizer and chemical, petroleum products, and retail seeds are used by the Economic Research Service for annual cost of production budgets under the Food, Agriculture, Conservation, and Trade Act of 1990. These data series are essential for reliable estimates of costs for wheat, feed grains, cotton, tobacco, sugar and dairy.

The long-term prices paid estimates are used extensively by universities, market researchers, and other sectors for economic analysis relating to farm income and alternative marketing policies.

SPECIAL FEATURES

RELATED PROGRAMS

Prices Received
Agricultural Resource Management, Phase III

February 2003

PRICES RECEIVED AND PRICES RECEIVED INDEXES

PURPOSE

The Prices Received surveys provide data to estimate prices received by farmers and ranchers for crop and livestock commodities. The survey data are used for determining prices received indexes and parity prices. The grain prices survey provides data to compute monthly marketings.

COVERAGE

The prices received program includes all commodities in the NASS estimating program. For the major grains and oilseeds, a survey is conducted monthly in the top producing states. Prices for the major livestock species are also estimated monthly. Market year averages prices are derived from these data. Market year average prices are estimated for fruit, vegetables, and other minor commodities. Program coverage for prices received is customized for every state.

CONTENT

The Prices Received survey for grains and oilseeds obtains the total quantity purchased and the total dollars paid for each commodity for the entire preceding month, plus a current mid-month price. For livestock, number of head sold, total liveweight, and total dollars paid to producers for the preceding month are collected. For some of the fruit and vegetables, data are collected for fresh market and processing. For the commodities done annually, producers and processors are asked to provide average price. When available, administrative data, such as market order or Agricultural Marketing Service reports, are obtained to supplement NASS sources. These data are sufficient for computing the indexes of prices received and parity prices as required by law.

FREQUENCY

The Prices Received survey is conducted monthly for grains, oilseeds, and major livestock. Prices for the other commodities are collected annually.

METHODS

The target populations for the Prices Received survey are specific to each commodity area. Grain and oilseed price information is obtained from about 2,600 grain elevators and buyers. Livestock prices are collected from buyers, auctions, stockyards and packing plants that buy directly from producers. Fruit and vegetable price information are collected from State boards, marketing cooperatives and grower associations, processors, canneries, and producers. Cotton prices are collected from 220 buyers. Rice prices are collected from all known (about 75) rice buyers. Agricultural Marketing Service price data are used to supplement NASS survey data.

The first contact with a sampled firm is generally done via personal interview. The NASS price

program is explained to the respondent. After this interview, questionnaires are mailed or data are collected by telephone. Telephone follow-up or follow-up visits are made as necessary to encourage response and to resolve any reporting difficulties.

The market year prices are derived by weighting monthly prices by monthly marketings. Prices received indexes are derived from these data. Parity prices are computed by dividing the average price of a commodity for the past ten years, adjusted for government support, by the overall average prices received index (1910-14=100) for the same 10 years, also adjusted for government support; and multiplying that ratio times the current prices paid index (1910-14=100).

PRODUCTS

The *Agricultural Prices* report is published on or near the last working day of each month. Approximately 65 farm commodities are included. An annual summary is released in July and includes some 130 farm commodities. In addition to U.S. prices, State prices are provided for commodities that, in the aggregate, account for 80 percent of U.S. marketings of that commodity. State prices weight to a U.S. price based upon each state's volume of marketings.

Prices received indexes are computed for overall farm prices, all crops, all livestock, and twelve crop and livestock commodity groupings. These indexes are computed on a 1910-14=100 and 1990-92=100 basis. There are 44 commodities covered in the overall prices received index which account for about 90 percent of the marketings for all farm commodities.

USES

Estimates of prices are used by the NASS to determine the value of agricultural production. Estimates are used by the Economic Research Service (ERS) and Department of Commerce in the computation of commodity cash receipts and net farm income, a major component in the National Income Accounts. The Farm Service Agency uses the data when determining counter cyclical and disaster payments while the Risk Management Agency them for insurance programs. The Forest Service uses the data to determine annual grazing fees for use of the National Forest System Lands. State governments use prices received data for land valuations and land taxation purposes.

The Indexes of Price Received by farmers are used by many government agencies. The Federal Reserve Bank and ERS use the prices received indexes as a general measure of commodity price changes. Parity prices are used to establish and maintain Federal Market Orders. Calculation of parity prices follow provisions of the Agricultural Adjustment Act of 1938.

SPECIAL FEATURES

RELATED PROGRAMS

Prices Paid and Prices Paid Indexes February 2003

SHEEP INVENTORY

PURPOSE

The purpose of the Sheep Inventory survey is to provide information on inventory of breeding and market sheep, lambs born during the previous year, and wool production and prices. Additionally, the January survey includes goat inventory and mohair production and prices in three states.

COVERAGE

The January Sheep Inventory survey is a national program conducted in all states. The July Sheep Inventory survey is conducted in all states except Alabama, Alaska, Arkansas, Delaware, Florida, Georgia, Hawaii, Kentucky, Louisiana, Maryland, the New England States, New Jersey, North Carolina, South Carolina, and Tennessee. Farmers and ranchers surveyed are representative of the entire sheep industry. The January Sheep Inventory survey also collects inventory of goats in Arizona, New Mexico, and Texas.

CONTENT

Questions for the sheep and lambs are asked in the January and July Sheep Inventory surveys to provide information on inventory of breeding and market sheep, lambs born, death loss, and wool production. In addition, questions for goat inventory, value, goats clipped, and mohair production and value are asked in January.

FREQUENCY

The Sheep Inventory survey is conducted two times per year, in January and again in July.

METHODS

The Sheep Inventory survey respondent universe is the farms and ranches in the United States which raise sheep including sheep in feedlots. The sample, of over 13,000 in January and 2,300 in July, is drawn from the list of known sheep and goat producers on the NASS list sampling frame which contains breeding inventory reported on the previous years' Sheep Inventory survey. A sample of area tracts not on the list is surveyed to measure incompleteness. Information collected on the Sheep Inventory survey is collected via mail, telephone interview, and face-to-face interview.

PRODUCTS

Sheep inventory estimates for each state by class (breeding, market, ewes, etc.), as well as lambs born and wool production for the previous year, are published in the *Sheep and Goat* report in January. For three states, goat inventory and mohair production and price are published. Death

loss estimates are published in the *Production, Disposition, and Income* report in April. The final estimates of the current year's lamb crop and regional inventory estimates by class are published in the *Sheep and Goat* report in July.

USES

Uses of statistical information are extensive and varied. Producers are the primary users of the information for determining production and marketing strategies, planning purchases and capital investments. Other users of the data include financial institutions, producer organizations, agribusiness, state and national farm policy makers, and foreign and domestic buyers of agricultural products. Government agencies are important users of the data. Federal farm programs require information on supplies, production potential and income. Economists, data analysts, and university researchers, transform the data into projections of current trends, interpret their economic implications, and evaluate alternative courses of action in terms of prospective outcomes. These projections multiply the usefulness of the data.

SPECIAL FEATURES

In January, estimates of the total number of operations with sheep and the number of operations by herd size are also made. The total inventory for each range of herd size is included.

Questions for sheep and lambs pertain to animals on the total acres operated, regardless of ownership except for Arizona, California, Colorado, Idaho, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. In these states, questions for sheep and lambs pertain to animals owned by the operation, regardless of location.

RELATED PROGRAMS

Meat Animals: Production, Disposition, and Income
Livestock Slaughter

February 2003

TROUT PRODUCTION

PURPOSE

The Trout Production survey provides basic data for the trout industry such as the number of trout farms; the number, pounds, and value of fish produced; the point of first sale; and information on the number of fish lost by cause.

COVERAGE

All known trout farms in the 20 top producing states are included in the survey. The states are Arkansas, California, Colorado, Connecticut, Georgia, Idaho, Maine, Massachusetts, Michigan, Missouri, New York, North Carolina, Oregon, Pennsylvania, Tennessee, Utah, Virginia, Washington, West Virginia, and Wisconsin.

CONTENT

Data are collected on the number, pounds, and value of sales by size of fish and the number and value of sales of eggs. Additional questions cover the percent of fish sold through each marketing outlet and losses of fish by cause. Data cover farm raised fish and fish raised for restoration, conservation, or recreational purposes. The marketing outlets are processors, restaurants and other retailers, consumers, live haulers, fee and recreational, other producers, and government agencies. The causes for loss are disease, theft or vandalism, chemical contamination, drought, flood, and predators.

FREQUENCY

The survey is conducted each January.

METHODS

A list of trout operations is maintained by NASS. All operations (nearly 700) are surveyed each year. The reference date for the number of trout farms is January 1 of the current year. Sales and loss data refer to the previous calendar year. Questionnaires are mailed to reach respondents about the first of January. Growers not returning questionnaires by mail are followed up by phone. In some cases, personal visits are made.

PRODUCTS

Results are published in the *Trout Production* report in February. Estimates include number of trout farms; the number, pounds, and value of fish and eggs produced; the point of first sale; and losses by cause by state and 20-state total.

USES

Producers and marketers use inventory numbers to project future supplies of trout. Producers use the data in making business decisions. Economists use sales data to assess the present status and future of the industry. Data are also used in assessing the general situation of the agricultural sector. Natural resource and conservation specialists use the data for determining supplies of fish for restocking and related programs.

SPECIAL FEATURES

RELATED PROGRAMS

Census of Aquaculture
Catfish Production

February 2003

TURKEY HATCHERY

PURPOSE

The monthly Turkey Hatchery survey provides estimates of turkey eggs in incubators and number hatched in the 20 leading states. The estimates indicate the number of market birds that will be available in about five months and provide basic data used to develop state estimates of the number of turkeys raised.

COVERAGE

All known operating turkey hatcheries in 20 states are contacted each month. The following states are in the program: Arkansas, California, Indiana, Iowa, Kansas, Massachusetts, Michigan, Minnesota, Missouri, North Carolina, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Dakota, Texas, Utah, Virginia, West Virginia, and Wisconsin.

CONTENT

Data are collected on the number of turkey eggs in incubators on the first of the current month, the number of poults hatched during the previous month, and in what state these poults were placed for feeding to market weights.

FREQUENCY

The survey is conducted monthly.

METHODS

NASS maintains a list of active turkey hatcheries, about 40, and all are contacted each month. The reference date is the first of the current month for eggs in incubators and entire previous month for number of poults placed. Questionnaires are mailed to reach the respondents by the first of the month. Hatcheries not responding with a completed questionnaire are contacted by phone.

PRODUCTS

The *Turkey Hatchery* report is released about the 13th of each month. Number of eggs in incubators on the first of the month and number of poults placed in the previous month are published by state, region, and 20-state total.

USES

The information in this report is used by data users to estimate the number of turkeys that will be marketed in about five months. These data are also the basis for the NASS estimates of turkeys raised each year. Additionally, economists and other analysts use the data to monitor the industry's health and assess its economic contribution to the agricultural sector.

SPECIAL FEATURES

RELATED PROGRAMS

Turkeys Raised
Poultry Slaughter
Poultry Production, Disposition, and Income

February 2003

TURKEYS RAISED

PURPOSE

The Turkeys Raised survey measures the number of turkeys raised, by state, for the current year, and also provides the number intended to be raised in the upcoming year.

COVERAGE

All known turkey farmers and contractors are contacted in 32 leading states in December. The following states are in the program: Arkansas, California, Colorado, Connecticut, Delaware, Illinois, Indiana, Iowa, Kansas, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Texas, Utah, Vermont, Virginia, West Virginia, and Wisconsin.

A mid-year projection of turkeys raised is made in August using monthly turkey hatchery data.

CONTENT

Data are collected on the number of poults placed, death loss, and the resulting number raised. Producers are also asked to declare their production intentions for the upcoming year.

FREQUENCY

The survey is conducted each December. No survey is conducted for the August estimates.

METHODS

NASS maintains a list of independent turkey farmers and contractors and all (about 1,000) are contacted for the survey. The reference date is the current calendar year. Questionnaires are mailed to reach respondents about December 1. Those not responding by mail are contacted by phone.

Monthly hatchery data are used to derive a mid-year projection of number of turkeys raised and to be raised in the current year in August.

PRODUCTS

The Turkeys Raised reports are issued in August and the following January. The August report contains projections of turkeys raised by state and a 32-state total. The January report contains final estimates of turkeys raised in the previous year and intentions to raise next year by state and a 32-state total. Death losses are reported by region and a 32-state total.

USES

The August report provides data users with a preliminary estimate of turkeys being raised in the current calendar year. The January report presents the final estimates of turkeys raised the previous calendar year and an estimate of the number to be raised the next year. Producers can assess industry trends and outlook for business planning and marketing decisions. Processors and retailers use the data to project supplies. Economists and other analysts use the data to monitor the health of the industry and evaluate the contribution to the general farm economy.

SPECIAL FEATURES

RELATED PROGRAMS

Turkey Hatchery
Poultry Slaughter
Poultry Production, Disposition, and Income

February 2003

VEGETABLES

PURPOSE

Vegetable surveys provide acreage planted and harvested, production, disposition, utilization, price, and value for 37 vegetable commodities in 40 of the 50 states. Some surveys are used for production forecasts, while others are used to derive end of season estimates.

COVERAGE

The Vegetable surveys collect data in the major producing states for each respective commodity. States with a small number of growers survey all known commercial producers of vegetable commodities. States with a large number of producers contact a sample of the growers to get production data. Sampling may still result in a census for some vegetables.

CONTENT

The vegetable program is complex in that some crops are used for processing only, some are fresh market only, and others are dual purpose crops (both processing and fresh market). Data are collected for planted and harvested acreage, yield, production, disposition, market year average price, and total crop value. In addition, processing and dual purpose crops are further divided into canning and frozen utilizations.

Vegetable processors are surveyed the first week of April for their intended acreage of vegetables for processing and the first week of July for acreage contracted. Mid-season surveys of processors (Peas, July 1; Snap Beans, Corn and Tomatoes, September 1) are conducted to forecast crop production. In the fall, processors are asked for final acreage harvested, production, and value for the above crops. California tomato processors are surveyed separately for intended acreage; preliminary acreage; and acreage, production, and price. Processors of asparagus, an early season crop, are surveyed for acreage in April.

For fresh market vegetables, growers are surveyed seasonally for estimates of crops such as onions and strawberries. Producers growing multiple fresh market crops are surveyed at seasonal intervals in major producing states for the remaining vegetable crops in the program.

FREQUENCY

Vegetable data are collected six times during the year. Acreage forecasts are obtained on a quarterly basis for fresh market and processing vegetables. A separate processing production forecast is conducted in September and the annual summary is completed at the end of season.

METHODS

Questionnaire content, survey timetables, and survey administration are state specific. Data are gathered by telephone interviews, mail out-mail back, faxed questionnaires, and personal interviews. Data accuracy and reducing respondent burden are taken into account in conducting the surveys. The most desirable method is to do a complete enumeration of growers. When this is not possible, a mail inquiry, sent to a sample of growers, is conducted. Because of the variable nature of the vegetable industry, mail lists are frequently updated to ensure complete coverage.

PRODUCTS

The *Vegetable Annual Summary* is released each January. Quarterly *Vegetables* reports are released by season; winter in January, spring in April, summer in July, and fall in October. The *Vegetables* fall processing report is released in September. Report content varies according to the survey content and schedule.

USES

These estimates provide vital statistics for growers, processors, and marketers to use in making production and marketing decisions. Vegetable industry sources use these data to track production levels for the industry. Federal and State agencies use the annual summary when developing and appraising government programs affecting the vegetable industry. Survey results are used by the Economic Research Service (ERS) for the July *Vegetables Situation and Outlook Yearbook* and for the *Vegetables and Melons Outlook*, released electronically every other month. Allied industries such as container manufacturers, chemical manufacturers, and plant breeders use the data in feasibility studies. These studies are used to assess the economic impact of products, define market size and location. Data have been provided to foreign governments interested in U.S. vegetable production and to extension specialists at land grant universities.

Vegetable data provide information to assist the Agricultural Marketing Service in the administration of market orders for tomatoes, celery, onions, lettuce, and melons. The office of the U.S. Trade Representatives, Executive Office of the President, uses the data to help administer their Generalized System of Preferences Program, a program to determine preferred imports from other countries. Products, such as fresh tomatoes, eggplant, chili peppers, squash, watermelons, and onions are import sensitive and the North American Free Trade Agreement provides added protection against import surges of products while tariffs are being phased out.

SPECIAL FEATURES

RELATED PROGRAMS

Vegetable Chemical Use
Post Harvest Chemical Use

February 2003